The Impact of Religiosity, Culture, Legal Environment and Corporate Governance on Earnings Management Methods

A thesis submitted for the Degree of Doctor of Philosophy in the Department of Business and Management

June 2017

ERIC OWUSU BOAHEN

(BSc MSc MBA ACMA CGMA PGCE)

UNIVERSITY OF SUSSEX

Table of Contents

List of Tables

Department of Business and Management

University of Sussex

DECLARATION

WORK NOT SUBMITTED ELSEWHERE FOR EXAMINATION

I hereby declare that this thesis has not been, and will not be, submitted in whole or in part to another University for the award of any degree.

Signature…… ……..

Abstract

The University of Sussex

Eric Owusu Boahen

The Degree of Doctor of Philosophy in the Department of Business and Management
Thesis Title: The Impact of Religiosity, Culture, Legal Environment and Corporate Governance on Earnings Management Methods.

June 2017

This thesis examines several important aspects of the impact of religiosity, national culture, corporate governance, BIG4 auditors and legal environment on earnings management practices in the U.S. and 63 other countries.

First, the study investigates the extent to which religious socials norms of the firms' environment interact with corporate governance and BIG4 audit to affect managers' motivation to engage in expense and revenue misclassification in order to influence reported core earnings. The results show that religiosity decreases misclassification and complements corporate governance and the Sarbanes-Oxley Act (2002) to mitigate classification shifting in high, rural and geographically centralised segment areas. In a religious social norm environment, the study finds that managers have a disincentive to shift revenue items from, and core expenses into, special items to inflate reported core earnings to avoid market penalties and beat analysts' forecasts, even more so in the presence of board independence. In addition, the study shows that the interactive term between religiosity and audit from the big four auditors also lowers the presence of misclassification. Overall, the results show that religiosity lessens misclassification and

complements corporate governance and audit against the misclassification of revenue items or core expenses.

Second, the study examines the extent to which religiosity, firms' legal environment, and the interaction between these two variables affect accrual-based and real-activities earnings management. The results suggest that religiosity, legal environment and the interaction between them mitigate accrual-based earnings management. In contrast, the study observes a positive association between religiosity and real-activities earnings management, suggesting that religious social norms facilitate real-activities earnings management. However, the positive effect of religiosity on real activities is subdued when the study interacts the legal environment with religiosity. The results also indicate that firms' corporate governance mechanism mitigates both accrual-based and real activities earnings management.

Finally, in Chapter four, the study provides new international evidence by examining the relationship between the misclassification of core expenses into special items and country-wide religiosity, the national dimensions of culture, and the legal environment in developed, emerging and developing countries. The study observes that the interaction between religiosity and legal environment, or national cultural dimensions and legal environment, mitigates expense misclassification in developed, emerging and developing countries. Therefore, the positive effect of power distance, masculinity and uncertainty avoidance on earnings management can no longer be demonstrated when national dimensions of culture interact with the legal environment. In Chapter five, the study concludes, summarises and discusses some of its major findings and contributions. The limitations of the study, policy implications and suggestions for future research are also provided.

Acknowledgements

This thesis would not have been possible without the guidance and help of several people.

First and foremost, I thank my Lord and Saviour Jesus Christ for the gift of life, good health and sound mind to complete this thesis.

I would like to express my profound appreciation and gratitude to my supervisors Prof. Emmanuel Mamatzakis and Prof. John Forker for their guidance, motivation and support during the entire research process.

I would like to thank participants at both the Young Finance Conference and Business & Management PhD conferences for their insightful comments and suggestions on drafts of Chapters 2, 3 and 4.

I also express my profound gratitude to PhD annual review committee members Dr Mike Osborne and Prof Ranko Jelic for their insightful comments and guidance throughout the study.

I am also very grateful to the management of Royal Docks School of Business and Law, University of East London for their generous financial support to cover the tuition fees throughout the duration of the PhD studies.

Finally, I would like to thank my family, friends, my line manager (Christina Stirk) and colleagues at the University of East London for their love, encouragement and support at all times. Above all, I thank my wife and children for their sacrifices and patience throughout my studies.

Dedication

I dedicate this thesis to my beloved wife and children – Mrs Eunice Owusu Boahen, Kwabena Owusu-Boahen, Francisca Owusu-Boahen and Eunice Sophia Owusu-Boahen.

Chapter 1 - Introduction

1.1. Aim of the Thesis

Earnings management has the potential to undermine the credibility of financial reporting. Much of the research on it focuses on accrual- and real-activities based and their relationship with stock prices, board characteristics and managers' remuneration and bonuses (Jarvinen and Myllymaki, 2016; Kothari, Mizik and Roychowdhury, 2016; Gao, 2013; McGuire et al., 2012; Callen et al., 2011, Cohen and Zarowin, 2010; Cohen et al., 2008) without paying due cognisance to classification shifting. Interestingly, both accrual-based and real-activities earnings management are based on the measurement and recognition of income and expenses which affect past and future reported earnings (Cheng, Lee and Shevlin, 2016; Gerakos & Kovrijnykh, 2013). The implication for accrual-based and real-activities earnings management methods is that reported net income decreases or increases, hence auditors and regulators scrutinise and pay maximum attention to such practices (Roychowdhury, 2006; Graham et al., 2005). On the other hand, classification shifting is when managers' report expenses, revenues, gains and losses on income statement lines rather than where they should appear in normal financial reporting prescribed by generally accepted accounting principles (GAAP) (Barua et al., 2010, Fan et al., 2010; McVay, 2006). The extant literature on classification shifting in international studies demonstrates that misclassification occurs under different local GAAPs (Behn et al., 2013; Haw et al. (2011). However, several studies on classification shifting are based on U.S. GAAP (Fan et al., 2010; Barua and Cready, 2008; McVay, 2006). This study uses financial statements prepared and reported by firms in line with the standards designed by the Financial Accounting Standard Board (FASB) Framework. These standards are collectively referred to as the U.S. GAAP and they govern the preparation of financial

statements as well as providing guidance for issuers, auditors and stakeholders of financial information. In the U.S., the FASB Accounting Standards or U.S. GAAP provide a primary authoritative source to shape or regulate the preparation and presentation of financial statements, except SEC registrants firms which are required also to comply with SEC guidance. The U.S. GAAP is rule-based but IFRS is principled based. The IFRS allows managers more flexibility in the choice of accounting methods and policies in financial reporting. The adoption of IFRS with the local GAAPs, will allow more flexibility in the choice of accounting standards at both national and international levels. This flexibility and discretion in financial reporting can lead to increase in earnings management at both national and international levels (Doukakis, 2010).

With Classification Shifting, income statement items are shifted up or down without falsifying or changing the bottom line net income. This involves treating recurring expenses as non-recurring on the income statement and therefore there are no implications for future reported earnings (McVay, 2006; Barua et al., 2010). Previous studies (McGuire et al., 2012; Cohen et al., 2008; Roychowdhury, 2006; Graham et al., 2005) provide ample evidence of factors affecting earnings management practices, but no study has attempted to examine the relationship between religiosity, culture, auditor characteristics, corporate governance, legal environment interactions and expense misclassification. The few studies that have examined the relationship between religion and earnings management in the U.S. overlook the interaction between religion and legal environment, religion and corporate governance, and religion and auditor characteristics, and their impact on expense misclassification at both national and international levels (Behn et al., 2013; McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012).

The aim of this thesis is to expand the literature and knowledge of earnings management and religiosity of firms' environment, using the social norms and agency theories. In particular, the study examines several aspects of the religious social norm environment of firms' headquarters, and their legal and cultural environment, together with their impact on firms' earnings management practices in the U.S. and other countries across the globe. First, in Chapter 2, the thesis tests the impact of religiosity, the interaction between religiosity and corporate governance, and the interaction between religiosity and audit characteristics on classification shifting. Moreover, the study evaluates the effects of geographic dispersion, and the effect of religiosity, audit characteristics and corporate governance on misclassification in pre- and post- Sarbanes-Oxley Act 2002, as well as financial crisis periods.

In Chapter 3, the study investigates the impact of religiosity, legal environment and the interaction between religiosity and legal environment on accrual-based and real-activities based earnings management. The thesis argues that religiosity complements existing monitoring mechanisms to mitigate manipulation of accruals, but real activities are positively related to the religiosity of a firm's environment. In addition, firms' litigation environment, examined by the interaction between religion and legal environments, constrains accrual-based earnings management but reduces the positive impact of religiosity on real activities. In Chapter 4, the study borrows the main argument of social norms and agency theories to examine new international evidence of the relationship between country-wide religion, national cultural dimensions, legal environment and misclassification of special items in developed, emerging and developing countries. Initially, the study examines whether firms in these different types of countries are engaged

in expense misclassification. Second, the study examines the extent to which country-wide religion, national cultural dimensions and legal environment separately or interact to affect managers' classification shifting behaviour in these economies.

Overall, the results show that religiosity in the firm's environment mitigates classification shifting and complements the existing corporate governance mechanism, auditor characteristics and legal environment to decrease managers' earnings management behaviour at both national and international levels. Moreover, the results show that country-wide religiosity, national cultural dimensions and legal environment interactions subdue earnings management practices and misreporting and thus improve the quality of reported earnings at both national and international levels.

1.2. Review of Dominant Theories, Financial Reporting and Earnings Management Literature

The objective of financial reporting is to provide useful financial information to stakeholders who make decisions and provide resources to the firm. Again, it is to compel firms to provide financial information to users who lack the ability to compel the reporting firm to provide them with useful financial information that will help them to make an informed decision. Therefore, auditors are hired to check for the quality of financial reporting and compliance with relevant Accounting Standards within the Financial Accounting Standard Board (FASB) Conceptual Framework. The FASB Conceptual Framework states "*that financial statements must be relevant to the users and it must be presented in a true and a faithful manner in all material aspect".* However, FASB

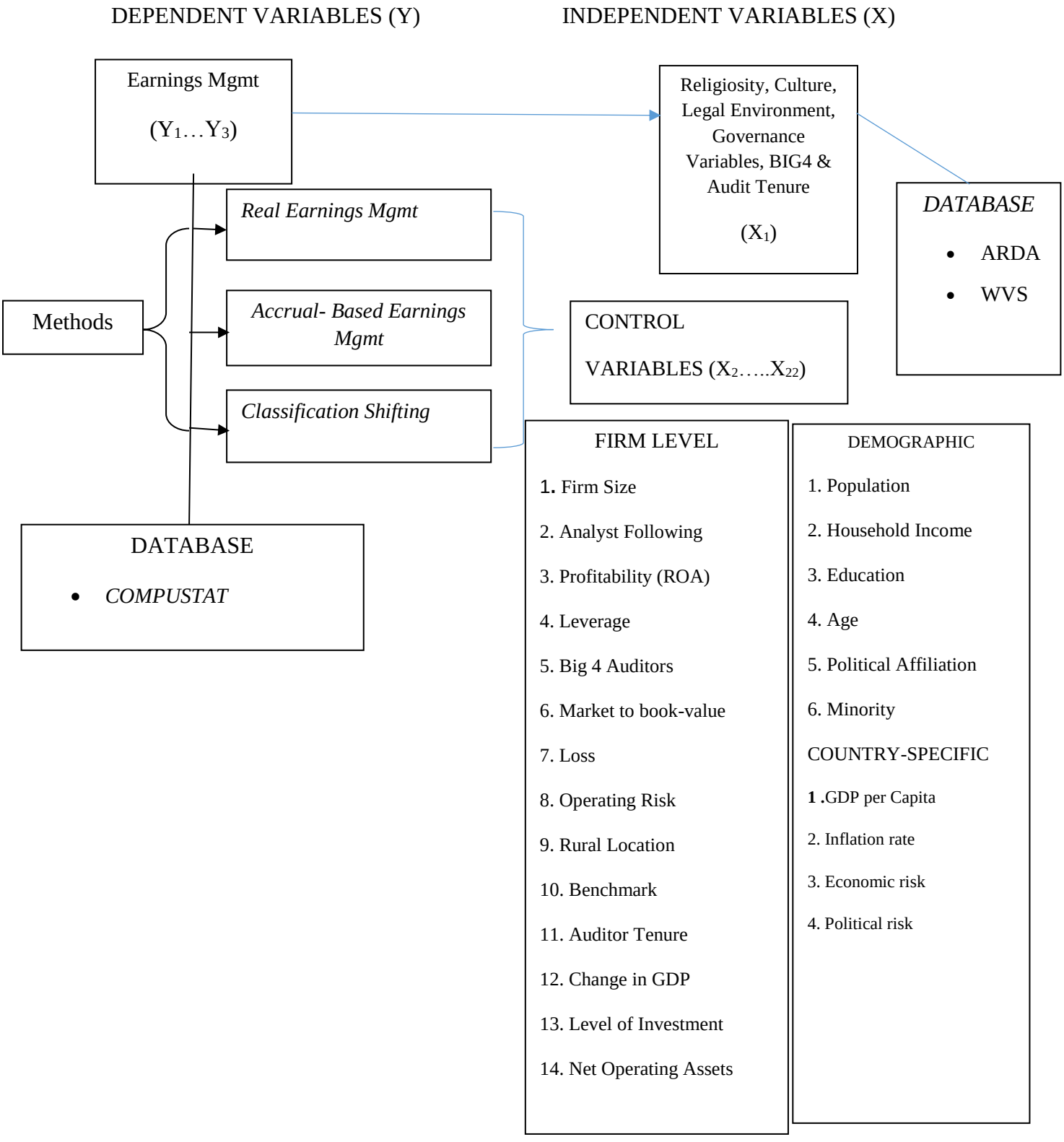
standards allow managers to use their discretion and judgement in financial reporting and structuring of corporate transactions. Consequently, managers can exploit their use of discretion and judgement in financial reporting to mislead users of financial information about the true position of the firms' financial performance. Even though, auditors check for compliance and ensure that the financial statements are "true and fair", are free from material misstatement and are presented fairly in a manner which reflects the underlying economic performance of the firm. However, earnings management in general and classification shifting in particular affect FASB qualitative characteristics of relevant financial information and faithful representation. For example; misclassification of income statement items, cutting down advertising expenses, reducing selling prices or delaying payment of expense etc in order to inflate reported income are a violation of relevant financial information and faithful representation (an objective of the FASB Conceptual Framework). This has serious implication on the quality of financial reporting which requires FASB to take into consideration in order to improve firms financial reporting to users of financial information.

Notwithstanding the FASB qualitative characteristics, evidence from previous studies indicate that firms are engaged in varying methods of earnings management in the U.S. Several of these studies have demonstrated an over-concentration of research on accrual-based earnings management (Zang, 2012; Cohen et al., 2010; Roychowdhury, 2006; Graham et al., 2005), misleading stakeholders by the neglect of other methods. However, some studies have also explored real activities manipulation, including cutting advertising expenses (Cohen et al., 2010); share repurchases (Hribar et al., 2006); disposal of profitable assets (Herrmann et al., 2003); reducing selling prices (Jackson and Wilcox, 2000); and

debt-equity swaps, derivatives, hedging and securitisation (Dechow and Shakespeare, 2009; Barton, 2001). Recently, misclassification of core expenses as special items has been noted as another method of earnings manipulation (Zalata and Roberts, 2015; Barua et al., 2010; Fan et al., 2010; Athanasakou et al., 2009; McVay, 2006).

Interestingly, Lehrer (2004) and Iannaccone (1998) studied the role of religion in individuals' economic decision making and observe that those who select or affiliate with a particular religious group are more likely to make choices that conform to the behavioural tenets proscribed by the group so as to escape after-death punishment. Previous research suggests that religious social norms have a strong influence on human behaviour, and therefore a thorough examination of the impact of religion on earnings management is essential (McGuire et. al., 2012; Sunstein, 1996; Cialdini and Goldstein, 2004). The following paragraphs discuss the different methods of earnings management and the underpinning theories of the thesis. The research framework is presented in figure 1.

FIGURE 1: RESEARCH FRAMEWORK – RELIGIOSITY, CULTURE, LEGAL ENVIRONMENT AND EARNINGS MANAGEMENT



1.2.1 Review of Social Norms Theory

The social norms of a particular environment have a substantial influence on the attitudes, behaviour, beliefs and values of the individuals living in that environment. Therefore, religious social norms play a vital role in shaping the values, culture, behaviour and attitudes of managers of firms that are established in places where there is high religiosity. Recent studies that have attempted to establish an association between religious social norms and financial reporting have observed a negative relationship between religiosity and incidences of financial reporting malpractices (McGuire et al., 2012; Callen et al., 2011), religiosity and aggressive financial reporting (Dyreng et al., 2012) and a positive association between religiosity and conventional beliefs and values (Omer et al., 2015). Admittedly, the effect of social norms on an individual's behaviour is powerful; Cialdini et al. (1990, 1991) indicate that the effect of these norms on individuals varies and depends on the value they attach to the norms, the different types of norms in the environment, as well as the peer pressure on the individual.

Social norms theory posits that individuals' behaviour and attitudes are shaped by the social norms of the environment in which they live or work (Cialdini & Goldstein, 2004; Sunstein, 1996; Kohlberg, 1984; Elster, 1989). Norms are socially observable facts that stipulate and forbid behaviour in specific situations and are deemed to manipulate social behaviour. However, the influence on the behaviour of individuals is due to the desire to gain acceptance amongst peer groups (Kohlberg, 1984) and the need to shun the retribution that goes with disregard of the established principles, attitudes, viewpoints, beliefs, philosophy and values that are deemed suitable and conventional (Sunstein, 1996). Therefore, this research predicts that high religious adherence in the environment where firms are

headquartered has the potential to shape the behaviour and attitudes of managers and influence their moral choices. Previous research (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012; Cialdini & Goldstein, 2004; Sunstein, 1996; Kohlberg, 1984) indicates that irrespective of the religious background of managers, social norm theory envisages that their behaviour is shaped by the religious social norms of the population in the neighbourhood that surrounds them. Kennedy and Lawton (1998) observe that the higher the degree of religious social norms in an environment, the stronger its effect on the people who live and operate in that environment. In a related study, Welch, Tittle and Petee (1991) note that the prominence attached to religious social norms in an environment has a great impact on an individual's devotion to social norms, attitudes and beliefs. To investigate whether managers in a religious social norm environment will be involved in dishonesty, theft or tax evasion, Welch et al. (1991) observe that the relationship between the individual, the religiosity of the environment, dishonesty, crime and theft is negative. In accordance with this finding, previous research has indicated that as individuals attain a higher level of religiosity, they tend to hold more conservative ideas on moral issues and demonstrate conventional ethical values and principles, while the converse is true (Barnett et al., 1996; Terpstra et al., 1993). Following the above, Kennedy and Lawton (1998) and McGuire et al. (2012) observe that religious social norms represent a major social tool which control beliefs and behaviours of firm managers. They argue that individual firm managers make decisions on behalf of the firm and it's possible that the nature and quality of decisions made will be influenced by the social norms of the firm's environment. Conroy and Emerson (2004) and Omer et al. (2015) find that accounting manipulation and mis-reporting are frowned upon by people with strong religious backgrounds. Likewise, professionals and firm managers who value religion will be less inclined to engage in

fraudulent financial reporting or hide figures to evade tax (Longenecker et al. 2004). This suggests that individual's level of religiosity and religious social norms of the firm's environment have the potential to mitigate the agency costs arising from the conflict between principal and agent relationship in an organisation. Therefore, an examination of the impact of local religious social norms on firms' earnings management practices could help to ascertain firms that are engaged in costly actions to shareholders. In addition, social norm theory posits that the social norms of the environment impact on behaviours because individuals have the tendency to conform to peer pressure (Kohlberg, 1984) so as to avoid penalties and costs which are often associated with rejection of acceptable values, beliefs and standards (Sunstein, 1996) in the environment. Again, Omer et al. (2015)suggest that even though firm managers may or may not be religious, they will nevertheless be influenced by the religious norms of the firm's environment because the religious social norms surrounding the population where firms are headquartered are a crucial component of the environment in which firm managers operate and live (Cialdini and Goldstein, 2004). Following the above discussions, an empirical evidence on how religious social norms of the firm's environment influence corporate decisions will provide useful insights and information for shareholders, standard-setters, regulators and stakeholders in general (Guiso et al. 2006).

In a related study, Scott (1987) defines institutions as "enduring systems of social beliefs and socially organised practices shaped by religion, work, politics, laws and regulations". Consequently, Suchman (1995) discusses institutional theory and observes that organisations are social and cultural systems which provide goods and services. As a result, studying the social systems, beliefs and values of the people in an environment helps to

understand the organisation's environment (Meyer & Rowan, 1977). Conceptually, it follows that organisational structures and corporate governance practices are strongly formed and influenced by the institutional environment. Indeed, the theoretical framework discussed above highlights how decision-making in an organisation is affected by the social and cultural factors of its environment (Scott, 1987; Meyer & Rowan, 1977). Previous studies (Conroy and Emerson, 2004; Longenecker et al., 2004) observe that manipulating accounting and financial records is often frowned upon and seen as unethical business practice by highly religious individuals. Therefore, religious social norms are capable of reducing the costs associated with separating ownership and control (agency costs) within an organisation. In fact, religious social norms can impact on agency conflicts and also the principal–agent debate regarding decision-making and the objectives of the firm. While several studies (Bonini et al., 2012; Harrison and Coombs, 2012; Hernandez, 2012; Wiseman et al., 2012; Berrone and Gomez-Mejia, 2009) have examined agency theory, an assessment of the effect of religious social norms and agency theory on financial reporting and earnings management could deepen our understanding and help reveal organisations that are engaged in costly actions to shareholders (Weaver and Agle, 2002; Terpstra et al., 1993).

1.2.2 Review of Agency Theory

A basic component of corporate governance discussions is agency theory. Firm managers, rather than owners, control firms; consequently, there has been an attempt to model managerial behaviour which is devoid of shareholders' control (Williamson, 1964; Monsen and Downs, 1965). The separation of ownership and control could lead to conflicts of interest; therefore, appropriate corporate governance mechanisms must be established to

help shareholders to exercise control over the managers responsible for their investment. Previous research (Ross, 1973) indicates that several governance mechanisms exist to prevent managers from focusing on their own interests rather than those of the shareholders. Jensen and Meckling (1976) observe that both shareholders and managers are utility maximisers, therefore agency problems and conflict of interests are bound to arise since managers will not always act or make decisions in the best interest of shareholders. To mitigate conflict of interest requires the implementation of good corporate governance practices that will facilitate non-market control mechanisms to be put in place in order to safeguard the shareholders' interests. For instance, the appointment of independent board members, establishing board committees, allowing shareholders access to free flow of information and separation of the role of the chairman and CEO are ways to protect shareholders' interests against managers' selfish ambition.

However, underpinning agency theory is the assumption that individuals are rational beings with egocentric and opportunistic behaviour, as well as varying levels of risk appetite (Fama & Jensen, 1983; Jensen & Meckling, 1976). In relation to agency theory, the principals (shareholders) forfeit their authority to agents (managers) to act on their behalf so that decisions made by the agent will maximise the wealth of the principal (Jensen & Meckling, 1976). Agency theory stipulates that senior management (CEOs and directors) tend to be selfish opportunists and will use their first-class information to manipulate owners unless effectively monitored or incentivised to do otherwise (Baker, Collins and Reitenga, 2009). Conventionally, agency theorists assert that shareholders' interests are taken for granted because managers pursue interests that do not maximise the wealth of shareholders (Eisenhardt, 1989; Jensen & Meckling, 1976). Berle and Means's (1932)

study regarding separation of ownership and control indicates that the separation of roles between ownership and control results in costs to shareholders known as agency costs, which need expensive processes and mechanisms to manage. For example, a technique introduced by shareholders to maximise their wealth is to grant compensation packages to managers through the board of directors as a source of motivation and encouragement (Holmstrom, 1979). However, shareholders prefer to maximise their wealth from any given level of performance and want rewards to CEOs to be as low as possible (Jensen & Meckling, 1976; Alchian & Demsetz, 1972). Indeed, studies (Hu et al., 2013; Adams et al., 2005; Graham et al., 2005) have observed that CEOs are agents of the firms they manage and wield substantial influence on the decision-making process of their firms, which can influence performance negatively or positively. From the viewpoint of agency theory and costs, where CEOs power is entrenched and established, performance will be affected negatively. However, studies have also revealed that a possible adverse effect of strong CEO power leads to sub-optimal decision-making, but on a positive note, firms with powerful CEOs act quickly to improve performance (Coles, Daniel and Nayeen, 2008; Harris and Helfat, 1998; Boyd, 1995; Finkelstein and D'Aveni, 1994).

Similarly, firms with a strong and effective corporate governance mechanism are expected to report improved performance and financial reporting quality. Previous studies indicate that CEO power has a limited effect on financial reporting when the corporate governance system is effective (Abbot et al., 2003; Kang and Shivdasani, 1997). In a related study, Aguilera et al. (2008) state that corporate governance denotes a system of interrelated practices having strategic or institutional complementarities, in which governance practices will be effective only in certain combinations. In fact, a main prescription of agency theory

is that effective boards will be mainly composed of independent directors, with separate CEO and chairperson positions (Aguilera, 2005). Shareholders face difficulties in monitoring agents' behaviour; therefore, they rely on a variety of different governance mechanisms to monitor management, such as direct shareholder supervision, independent boards, strong audit committees, board control and external auditors (Adams, Hermalin and Weisbach, 2010; Watts and Zimmerman, 1990). To investigate the impact of board composition on firm performance, studies by Adams and Ferreira (2005) and Carcello et al., (2002) have reported mixed and inconclusive findings. In this vein, this study adopts social norm and agency theories to examine how the corporate governance and religious social norms of the firm's environment affect the earnings management choices of firm managers. The theoretical arguments draw on the social norm and agency theories and posit that the religious social norm of the firm's environment affects the decisions, values, beliefs and behaviour of the individuals working for the firm. Moreover, corporate governance practices affect earnings management choices. Therefore, this study predicts that a highly religious environment has a positive effect on managers' moral values, beliefs and ethical principles, but a negative or positive association with earnings management choices.

1.2.3 Stewardship Theory

Stewardship theory assumes that firm mangers pursue actions in the best interest of the firm even if that action is not in their best interest. McCuddy and Pirie (2007) define stewardship as "doing things that benefit ourselves and the people currently around us". Leopold (1998, p.288) states that stewardship is "a protective restraint, a taking care of resources through nurturing and thrifty management of their use". In a related study, Newton (1997, p.606)

defines stewardship as "a duty of care and conservation with regard to resources or property". Agency theory portrays firm managers as opportunistic individuals who try to maximise their selfish interest (Jensen and Meckling, 1976). In contrast, stewardship theory suggests that steward managers are willing to sacrifice their personal interest to promote the long term interest of firm owners and other beneficiaries (Hernandez, 2012). The main difference between them is that the agency theory focuses on self-interest and stewardship theory protects the interest of others. However, Davis et al (1997) observe that unlike the agency theory, the literature on the relationship between the principal (firm owners) and the agent (firm managers), have paid little attention to stewardship theory. Again, Donaldson (2008) complains that corporate governance literature show over concentration on agency and transaction costs theories and portray firm managers as; self-interested, opportunistic, utility maximizers whose aim is to achieve economic benefits. Therefore, a tension arises between the principal and the agent, which stems from the fact that both parties struggle to maximise their economic benefits. In effect, by virtue of their position as firm managers, the agents have access to more information than the principal; they bear the risk of employment which also appears higher than the risk of capital borne by the principal. The risk levels bring tension; therefore, the agency theory states that the principal should be aware of this tension, work hard to prevent moral hazard (Holmstrom, 1979), ensure the agents acts in the best interest of the principal, and develop mechanisms to stop opportunistic behaviour of the agents (Fama and Jensen, 1983). Thus, agency theory focuses on the conflict of interest between agents and principals.

Le Breton-Miller and Lester (2011) indicate that stewardship theory resolves the conflict of interest and underlying tension arising from the risk exposure levels between the agents

(employment risk) and the principal (risk of capital). The stewardship theory assumes that agents will behave in a trustworthy manner, will work hard in the best interest of the firm and will focus on what is best for the principal regardless of the agent's self-interest (Davis et al. 1997; Donaldson and Davis, 1991). Under the stewardship theory, there is no moral hazard since agents do not consider their selfish interest to act against the principal. The understanding is that the principal will share the residual claims from the firm equitably and the maximisation of the principal's (shareholder's) wealth by the agent is also maximisation of the agent's wealth or interest. In other words, steward managers align their interest with the principal owners of the firm with the belief that what is best for the owners is what is equally best for them and their constituents (Davis et al., 1997). That is, the pursuit of the goals of the organisation will benefit both the principal and the agent. Therefore, the stewardship theory assumes that firm managers and owners share a common interest between themselves; however, this assumption is contrary to the notion that firm managers are self-seeking, individualistic, opportunistic and self-serving as espoused in the agency theory and by organisational economists in the market system (Donaldson, 1990). While the agency theory is too narrowly focussed on agents opportunistic and self-serving behaviour, it ignores situations where firm managers act in the best interest of the owners. Similarly, simply utilizing stewardship assumptions by trusting and relying on firm managers to act in the best interest of the organisations or owners without any monitoring or corporate governance mechanism is equally naïve. This study is underpinned by both agency and stewardship theories and provides a balance in the corporate governance and earnings management research as it shows the complementary role of stewardship theory. It's possible that stewardship theory can mitigate the agency costs and may provide further explanation as well as play a monitoring role that will help the firm and the shareholders.

1.2.4 Review of Religious Social Norms and Financial Reporting

Several studies (Terpstra et al., 1993; Barnett et al., 1996; Weaver and Agle, 2002; Conroy and Emerson, 2004; Longenecker et al., 2004) have considered the effect of religiosity on business ethics. For example, Weaver and Agle (2002) observe that business ethics are positively related to religiosity, especially when religion is an important part of an individual's self-identity. The individual's self-identity influences the social situation of the person and consequently their overall behaviour, as guided by the role expectation associated with that identity (Zahn, 1970). Ethical and good moral values are taught in religious gatherings, therefore regular attendance at religious programmes and activities is deemed to strengthen individuals' ethical values (Parboteeah et al., 2008). Previous research indicates that highly religious individuals tend to hold more conservative views and have higher moral standards than individuals with a weaker religious background (Terpstra et al., 1993; Barnett et al., 1996). Following these studies, Conroy and Emerson (2004) examine the association between religiosity and financial reporting and find that religiosity is negatively related to the use of accounting manipulation. In a related study, Longenecker et al. (2004) find that among U.S. business managers' unethical decisions are associated with those who deem religion to be less important for them. The study observes that religiosity is positively related to business ethics and high moral values. Similarly, Hilary and Hui (2009) find that managers of firms headquartered in highly religious areas demonstrate conventional corporate investing behaviours.

Intuitively, managers who work in environments with varied social norms tend to display wide-ranging behaviours (Tayler and Bloomfield, 2010). In fact, individuals who have responsibility for making decisions for firms are influenced by their moral values and level

of religiosity, which eventually shape the decisions they make inside the firm. Research indicates that managers of firms in highly religious areas are neither risk seekers nor risk neutral and are therefore less susceptible to financial malpractices and lawsuits (McGuire et al., 2012; Grullon et al., 2010). At the micro level, Lehrer (2004) and Iannaccone (1998) observe that individuals who affiliate themselves with a particular religious group have the tendency to make decisions to appeal to the laid down religious requirements in order to avoid punishment after death. In addition, research at the macroeconomic level by Guiso et al. (2003) and Barro and McCleary (2003) finds that religiosity impacts on economic beliefs and attitudes across countries. Their studies observe further that religious beliefs and church attendance affect personality traits and economic performance. In a cross-country study, Callen et al. (2011) attempted an investigation into whether religious social norms have any influence on earnings management, but they found no connection between proxies for earnings management and religiosity.

Previous research suggests that religious social norms have a strong influence on human behaviour, and therefore a thorough examination of the impact of religion on financial reporting is essential (Sunstein, 1996; Cialdini and Goldstein, 2004). In a related study, Graham et al. (2005) find that managers deem real activities earnings management as more morally and ethically appropriate than accrual manipulation. Kennedy and Lawton (1998) find that religion is a vital social mechanism with the potential to dictate beliefs and behaviour. In relation to religion and financial reporting, concurrent research (Conroy and Emerson, 2004; Longenecker et al., 2004) reveals that it is unethical and unacceptable practice for religious individuals to manipulate accounting information. In a recent study, using only twenty states and a few firms, McGuire et al. (2012) report that in the U.S., firms

that are headquartered in highly religious environments exhibit lower incidences of financial reporting irregularities.

1.2.5 Review of Religious Social Norms and Earnings Management

Several studies have examined earnings management practices; however, the literature on the association between religious social norms and earnings management methods is limited (McGuire et al., 2012; Dyreng et al., 2012. This study anticipates that earnings management practices will be shaped and influenced by the religious social norms of the environment where firms are headquartered. The focus of previous research has concentrated on establishing whether or not there is an evidence of earnings management and when earnings management occurs. For example, studies have examined general measures of earnings management in samples of organisations where there are clear motivations to manipulate earnings (Gerakos and Kovrijnykh, 2013; Zang, 2012, Roychowdhury, 2006). Generally, findings from previous studies have been consistent with organisations' manipulation of earnings prior to initial public offerings (IPOs) (Kim and Park, 2014; Roychowdhury, 2006), to secure job security and increase performance-based compensations (Gerakos and Kovrijnykh, 2013; Cohen and Zarowin, 2010; Cohen et al., 2008); to secure substantial external funds or avoid violating loans contracts (Horton, Serafeim & Serafeim, 2013; Graham et al., 2005); to circumvent the costs of regulations or increase the benefits associated with regulations (Zang, 2012; Badertscher, 2011); or to misclassify expenses from recurring ones to non-recurring expenses and exceptional items (McVay, 2006).

Healy and Wahlen (1999) define earnings management as "managers' use of judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers". The literature indicates that firm managers exercise judgement in financial reporting in several ways. For instance, discretion is exercised in determining: (i) the useful life and the disposable value of non-current assets; (ii) the post-employment benefits of existing staff; (iii) deferred taxes; (iv) losses from bad debts; (v) impairments of assets; and (vi) pension benefits obligations. In addition, judgement is required from managers in selecting from appropriate and suitable accounting methods and policies for reporting specific economic transactions, including the straight-line and the reducing balance methods of depreciation, or the various inventory valuation methods (LIFO, FIFO or weighted-average). Rowchowdhury (2006) indicates that managers can exercise judgement in working capital management by increasing or decreasing inventory levels, delaying or speeding up the timing of inventory shipments or purchases, as well as implementing flexible or rigid receivable policies. Similarly, managers can choose to delay or make expenditures on research and development (R & D), advertising and maintenance. They also can exercise discretion in structuring corporate transactions; for instance, lease contracts and obligations can be structured as an on- or off-balance sheet exposure, business combinations can be structured either as purchase accounting or pooling of interest method, and equity investments can be structured as an associate investment instead of a subsidiary in order to avoid consolidation.

Healy and Wahlen's (1999) definition of earnings management suggests that its main objective is to mislead stakeholders about the economic performance of the firm. This is only possible and can only arise in firms where there is information asymmetry between managers and stakeholders, as well as where managers are optimistic that stakeholders are incapable of undoing the earnings management (Stein, 1989). In fact, managers are capable of utilising accounting judgement to provide useful financial information and detailed financial reports to stakeholders. Interestingly, this is possible where accounting choices and estimates are deemed to be appropriate and credible pointers of the financial performance of the firm. For example, managers' estimates of net receivables in firms with strong external monitoring will be considered as effective and credible forecasts of cash collections. Previous research (Gerakos and Kovrijnykh, 2013; Horton, Serafeim, & Serafeim, 2013; Zang, 2012) indicates that the use of judgement in financial reporting has the advantage of improving management's communication between them and external stakeholders and of resource allocation; however, the cost is possible earnings management through misallocation of resources and manipulation of reported earnings. In line with previous research, this study defines earnings management as the intentional use of legitimate accounting techniques and rules to generate high quality financial reports to mislead users either through revenue recognition or expenses. Three methods of earnings management (accrual-based, real-activities based and misclassification of expenses) are noted in this study.

1.2.6 Review of Corporate Governance and Earnings Management

The agency theory has shown that strong corporate governance mechanism serves as a form of monitoring to curb crafty managerial behaviour, financial mis-reporting and mitigate information risk. A sound corporate governance mechanism requires superior board independence, autonomous audit committees, strong board size and separation of the CEO and the chairman roles (Kim, Mauldin and Patro, 2014; Gonzalez and Garcia-Meca, 2014; Jo and Harjoto, 2011). Therefore, audit committees and strong boards play an important role to guard the interest of the principal as well as provide them with good quality financial information which is free from manipulation. A strong governance mechanism provides both direct and indirect oversight in helping to analyse the financial statements with the aim of reducing financial reporting irregularities (Laux and Laux 2009). Where CEOs have the power and influence to shape the composition of audit committees and board oversight policy, the efficiency of the audit committee and the board will be impaired and hindered, thus increasing the agency conflicts. This means that the presence of audit committee and board will not necessarily provide an absolute deterrent for financial reporting irregularities, especially earnings management. Therefore, the board and audit committee members should have the competence to function without undue influence from the CEO.

The accounting literature is satiated with studies that discuss the association between corporate governance mechanism and financial reporting irregularities (Dechow et al. 1996; Beasley, 1996; Dechow and Dichev, 2002). These studies find that firms' that are involved in financial reporting irregularities have weak corporate governance mechanism. For example, studies (eg. Cohen et al. 2010; Dhaliwal et al. 2010; Agrawal and Chadha, 2005; Faber, 2005; Abbott et al. 2004) observe that firms that have weak audit committees

and whose board of directors are controlled by inside directors with few external non-executive directors have very weak financial reporting system. Importantly, the presence of autonomous audit committees reduces the motivation by firms to be involved in fraudulent financial reporting, the misstatement of financial reports, rather firms aspire to maintain high accruals quality. Recently, Rubin and Segal (2012) examine the attitude of reputable directors towards financial reporting and find that high standing directors have preference for companies with high inherent earnings quality and lower levels of discretionary accruals. Several studies have examined the turnover of outside directors (eg. Faber, 2005; Srinivasan, 2005; 2004), senior management (Livingston, 1997; Beneish, 1999) following the detection of financial reporting irregularities and accounting restatement. Apart from Beneish (1999), these studies find substantial turnover in boards, top managers and financial officers in firms that restate earnings and report financial irregularities. The following paragraphs provide a discussion of the various governance mechanisms.

1.2.6.1 Board Size

The extant literature on corporate governance and board composition agree that board size is important. These studies (Coles et al., 2008; Harris and Raviv, 2008; Raheja, 2005) observe that there are a number of factors that determine optimal board size and these include; the proportion of insiders and outsiders on the board, the industry in which the firm operates, the size and complexity of the firm. Small boards are easy to coordinate, able to have effective discussions and agree on issues effectively and efficiently. They also have fewer independent directors with versatile skills, who are able to demand private information disclosure from insider members in order to reduce earnings management

practices and financial reporting irregularities (Xie et al., 2003). The empirical evidence indicates mixed results between board size and financial reporting irregularities. For example, Abbot et al., (2004) and Beasley (1996) observe a positive relationship between board size and financial statement fraud, board size and earnings restatement respectively. On the contrary, Xie et al., (2003) and Peasnell et al., (2005) find a negative relationship between abnormal working capital accruals and board size but Osma (2008) observe no relationship between real earnings management and board size.

1.2.6.2 Audit Committee

The size of audit committee might influence the level of earnings management. Audit committees provide relevant expertise and work to promote shareholders' interests. Large audit committees are expected to be more independent are less susceptible to CEOs undue influence than small audit committees. A good corporate governance mechanism mandates each firm to establish an audit committee with a minimum number of at least 3 independent directors (Combined code, 2008; Smith committee, 2003). The empirical evidence demonstrates the significance of audit committee size. For example, prior studies Abbot et al., 2004; Bedard et al., 2004; Xie et al., 2003) observe that the relationship between audit committee size and accruals-based earnings management is insignificantly negative. In a related study, Lin and Hwang (2010) and Yang and Krishnan (2005) find that large audit committees are control accruals-based earnings management effectively. It is expected that large audit committees are likely to have independent directors who are willing and capable to mitigate opportunistic managerial behaviour in earnings management.

1.2.6.3 Independent Board

Fama and Jensen (1983) observe that board composition plays a crucial role in protecting the interests of shareholders as well as reduce agency costs arising from separation of ownership and control. Specifically, they indicate that independent or non-executive directors (NEDs) help to improve the board monitoring against financial reporting irregularities. Prior research (Bedard et al., 2004; Gerety and Lehn, 1997) indicates that NEDs who violate accounting and financial reporting requirements are more likely to have their contracts terminated as directors. However, independent directors who are deemed to have reputation as experts to monitor management opportunistic behaviour are likely to obtain additional directorships. This suggests that NEDs are incentivised to confront managerial aggressive financial reporting behaviour rather than conspire with them. A high proportion of independent board is desirable but as the number increases, the inducements for individual directors to become informed decreases. Similarly, as independent board members increases, insider directors' number also decrease, this hinders inside directors incentives to disclose private information. This could also result from less competition among insider directors or CEO control of insider directors (Raheja, 2005). Empirical evidence indicates that a higher proportion of independent board increases and improves the quality of financial reporting. For example, Beasley (1996) observe a positive relationship between a lower proportion of independent directors and conduct of fraud. Again, Osman (2008) and Klein (2002) find a negative relationship between a proportion of independent directors and earnings management practices. As a result of different conflicting theoretical arguments, this thesis does not predict a sign for the proportion of independent directors.

1.2.6.4 Stock Ownership

The agency theory indicates that stock ownership by the independent directors will motivate them to scrutinise managerial behaviour by better aligning their interests with shareholders, thus making it easier for them to question and challenge management proposals (Bedard et al., 2004; Beasley, 1996; Jensen, 1993). On the contrary, when independent directors have too high share ownership, they will act as insiders; collude with mangers to safeguard their investments in the company and to exploit non-controlling interest shareholders (Carcello and Neal, 2003). In fact, corporate governance mechanism in most countries forbids independent directors to receive stock option compensation (Bedard et al., 2004). The empirical evidence substantiates the above viewpoints. Beasley (1996) observe a negative relationship between the level of independent directors' stock ownership and probability of fraud. Similarly, Klein (2002) indicates that there is a negative relationship between accruals-based earnings management and the existence of outside block shareholders on audit committee, an indication that stock ownership aligns the interests of both external shareholders and independent directors. On the contrary, Bedard et al., (2004) and Yang and Krishnan (2005) observe that as stock ownership on audit committees members (whether independent or not) increases, the level of accruals-based earnings management also increases. Again, Lin and Hwang (2010) undertake a meta-analysis and find that stock ownership by audit committee members is positively related to earnings management, supporting the alignment of the interests of independent directors with insider directors.

1.2.6.5 Powerful CEOs

The recent flurry of corporate humiliation involving top management in reputable organisations creates uncertainties and serious concerns among investors (Farber, 2005). A significant body of research with varying results is devoted to understanding the relationship between powerful CEOs (*defined in this thesis as: longer tenure in the position and CEO share ownership*) corporate decision-making, financial performance and reporting (eg. Cadman and Sunder 2014; Morse et al. 2011; Adams et al. 2005; Kang & Zardkoohi, 2005). These studies observe that CEOs who wield a degree of influence and power make decisions that maximise their own interest at the expense of shareholders. Morse et al (2011) reveal that powerful CEOs have the tendency to even manipulate compensation agreements to agree with favourable measures of performance. Previous studies (eg. Evans, Luo and Nagarajan 2014; Veprauskaite and Adams 2013; Jiraporn et al. 2012; Liu & Jiraporn, 2010; Combs et al. 2007) also indicate that directors can be influenced and firm performance prejudiced when CEO dominates the board members in decision-making because of "structural power". The implication of this observation is that CEO power is likely to influence firm's financial performance and reporting either positively or negatively. Recently, Evans et al., (2014), Veprauskaite and Adams (2013) find that the degree of relationship between CEO power and firm financial performance is negative. The findings confirm that higher concentration of power in the hands of CEOs adversely affect financial performance and reporting. Again, several studies have investigated the link between top management characteristics and financial reporting irregularities and observe that CEO with long tenure and substantial share ownership make deviant decisions which affect financial reporting of the firm (Jermias and Gani, 2014; Brochet and Srinivasan, 2013; Hennes et al. 2008; Srinivasan, 2005; Beasley, 1996;

Beasley et al. 1999; Dechow et al. 1996). Consequently, the extant literature reveals that CEOs with structural power are likely to engage in financial reporting irregularities and issue fraudulent financial statements (Srinivasan, 2011, 2008; Dunn, 2004; Farber, 2005; Dechow et al. 1996). Similarly, other studies (Srinivasan, 2013, Hennes et al. 2008; Faber, 2005; Finkelstein, 1992; Haleblian & Finkelstein, 1993) observe that CEO that has concentration of power resulting from share ownership is more likely to engage in aberrant decision-making to affect financial reporting quality of the firm. Another measure of committee governance quality is CEO Directors. They might form part of the board and work as CEO of another unaffiliated firm. There is a growing discussion about their presence on the board. Sun and Cahan (2009) find that CEO Directors appear more sympathetic and are more likely to support their fellow CEOs as they share similar views. Prior studies (Faleye, 2008; Daily et al., 1998) indicate that they may be motivated to take steps that can be used as benchmarks to help them justify their aberrant decisions in their own firms. This signals that the presence of CEO Directors can lead to lower governance quality and ignores the impact on their market value. However, CEO Directors are concerned about how to gain reputation for independence and competence. They aim at improving the efficiency of corporate committees because of their expertise and experience (Sun and Cahan, 2009; Faleye, 2008)

1.2.6.6 Outside Directorship

Fama and Jensen (1983) argue that independent directors have a motivation to act in a way that will protect their reputation as monitoring experts, and this helps them to secure outside directorships positions. The opportunity for the new outside directorships, will increase their exposure, experience and improve best practice (Bedard et al., 2004). This suggests

that earnings management is minimised in firms where board and audit committee members has more directorships. Conversely, more time and effort are required to effectively monitor management as the number of outside directorship increases, the effect is a reduction in monitoring quality and the likelihood of earnings management (Beasley, 1996). The existing studies support both stories. For example, Beasley (1996) observe a positive relationship between outside directors and the probability of fraud. On the contrary, these studies (Yang and Krishnan, 205; Bedard et al., 2004) find a negative relationship between accruals based earnings management and directors holding multiple directorships. The tenure of outside directors has also been found to affect financial reporting quality. Beasley (1996) observe that the probability of fraud decreases the longer the tenure of outside directorship. Similarly, Yang and Krishnan (2005) and Bedard et al., (2004) observe that as outside directorship tenure increases, the lower the degree of accruals earnings management. Again, empirical evidence support the role of financial experience on the board or among the audit committee members. Previous studies (Yang and Krishnan, 2005; Xie et al., 2003) find that the relationship between audit committee members with high finance or banking background and accruals earnings management is negative. Similarly, Hossain et al., (2011) and Abbott et al., (2004) find that audit committee with one at least one member with financial expertise mitigates accruals earnings management and the lowers the probability of restatement. The extant literature suggests that the above factors are important, however, neither theory nor empirical evidence has reached consensus on the exact relationship between these factors and earnings management.

Unlike the previous studies, this thesis focuses on the interaction between corporate governance variables (defined in this thesis as the presence of an audit committee, board size and independent board) and the religiosity of the firms' environment on earnings management practices. Even though, there are several measures of corporate governance mechanism as discussed in the extant literature, this thesis uses only three variables (audit committee, board size and independent board) as proxies of corporate governance because of lack of data availability for other governance variables. The researcher did not have access to the databases of the remaining governance variables. Again, the other governance variables (such as; CEO Duality, Share Ownership, CEO Directors, Outside Directorship etc.) were not accessible or the researcher did not have sufficient data firm-year observations that correspond with the estimate of unexpected core earnings or abnormal accruals. Therefore, in this thesis, these three variables (audit committee, board size and independent board) will be used as proxies of corporate governance mechanism. Admittedly, this is a limitation but it does not affect the results and findings of the study.

1.2.7 Why Do Firm Managers Engage in Earnings Management?

The literature on earnings management provides several reasons why firm managers' are engaged in earnings management. In fact, firm managers use various methods and accounting strategies to smooth the path of earnings on quarterly or annual basis. Earnings management does not involve dubious accounting practices or methods. It can involve window dressing of financial statements to attract investors or keep lenders and other supplies of credits. The financial statement is made to appear profitable by sometimes lowering profits in one financial year in order to increase profits in another accounting year.

It appears dubious and fraudulent but it is not because the firm is reporting the same earnings but simply spreading the profits evenly over a specific accounting periods. Previous studies Kothari et al., (2016) and Fan et al., (2010) indicate that to meet external stakeholder expectations and projections, firms may engage in earnings management. For example, this may involve misclassification of core expenses into non-recurring expenses, delay in expenditure on discretionary expenses (e.g. advertising expenses, research and development expenses etc.), defer or accelerate accruals payment or reduce selling prices in order to boost the firm's reported income or earnings. There is the need to smooth income or make the reported earnings to appear more predictable, less volatile and attractive That is, firms use their judgement and discretion to apply the accounting policies and procedures in a manner that will help to influence reported earnings and the quality of financial reporting. In particular, prior studies (e.g. Zang, 2012; McVay, 2006, Roychowdhury, 2006) provide some reasons why firms' engage in earnings management practices. These include: (i) to increase their private benefits (ii) to meet or avoid violating debts covenants (iii) to enjoy preferable regulations (e.g.tax and other industry-specific regulations) and (iv) to respond to stock market.

1.2.7.1 To Augment Managerial Private Benefits

Jensen and Meckling (1976) explain managers' opportunistic behaviour for their private benefits at the expense of shareholders. Managers either avoid responsibility or spend excessively to promote their private benefits. To reduce the conflict of interests, firm managers are often given compensation packages in proportion to firm performance, which is determined by an accounting measure such as revenue or earnings (Kothari et al., 2016). The procedure to align managers' shareholders interest provides an incentive for managers

to change reported accounting numbers to increase their compensation packages. Cohen et al., (2008) find that managers have the tendency to engage in earnings management when their compensation package is performance-based. Zalata and Robert (2015) indicate that managers engage in earnings management to improve their performance so as to get enough bonus but they hoard excess earnings through income-decreasing earnings management for future use. There is also empirical evidence that earnings management increases with performance-linked compensation components such as stock options, bonus, and managers' equity holdings (Dechow et al., 2012; Cohen et al., 2008; Cheng and Warfield, 2005). Apart from compensation packages, managers can also influence earnings to increase other benefits. Ahmed et al (2006) indicate that to secure their jobs or get a better job offer in future, managers may manage earnings. They manage earnings to conceal poor performance and to maintain their jobs. In contrast, Zang (2012) and Baneish (1999) observe that newly appointed managers "take a big bath" (i.e. recording losses) in the first of their appointment. This big loss becomes a source for increase in reported earnings in subsequent years, allowing the new managers to blame previous managers for the big loss.

1.2.7.2 To Avoid or Meet Debts Covenant

Lenders and creditors are interested in the financial performance of firms. Therefore, they set financial objectives for firms to meet. Firms which are not able meet such objectives may face some restrictions on their ability to use credit facilities or face some violation expenses. To keep debts covenants, managers may engage in earnings management to increase reported earnings to ensure that debts covenants are not violated. DeFond and Jiambalvo (1994) find a positive relationship between firms that are likely to violate the debts covenants and earnings managements practices. Cohen et al. (2012) observe that the

use of debt finance encourages upward earnings management. Recently, McGuire et al. (2012) and Jarvinen and Myllymaki, (2016) use financial leverage as a control variable where the dependent variable is a measure of accrual-based or real activities earnings management. Thus, firms manage earnings to avoid violation of debts covenants.

1.2.7.3 To Benefit From Preferable Regulations

Industries such as banks, insurance and utilities are regulated based on accounting numbers (Graham et al., 2005). For instance, financial services require a minimum capital requirement, reserves and insurance firms have a mandatory minimum financial health to meet. Therefore, firms in these industries have a greater incentive to manage earnings to meet regulations. Donelson et al., (2016) indicate that commercial banks manage earnings by adjusting loan loss provision or writing off loans to improve the capital adequacy ratio above industry benchmark. Beaver et al (2003) also find that insurance companies engage in reinsurance transactions or tend to inflate earnings through an understatement of claim losses to improve or manage reported earnings. Firms in general manage earnings to escape hostile regulations, minimise tax expenses or defer tax payments. When firms are exposed to alternative minimum tax, they inflate earnings before introduction of any alternative minimum tax regulation to deflate earnings afterwards or reduce tax expenses. Similarly, to manage earnings firms reduce tax expenses by timing purchase of inventories (Zang, 2012).

1.2.7.4 To Respond To Stock Markets

There is a stock market-driven motivation for earnings management. The three most important benchmarks that firms are required to meet are zero earnings, previous year earnings and consensus analyst forecast. It is not desirable for firms to report loss, because

of the reaction of the stock market. Shareholders want firms to report profit always because the market undervalues loss reporting and income-decreasing firms. Consequently, firms smooth earnings and growth pattern. Graham et al., (2005) report that firms engage in earnings management in order to meet earnings benchmark or build credibility with capital markets. There is a general notion that stock market penalises volatile earnings streams but firms that have steady and predictable earnings streams are rewarded by stock market (Dechow et al., 2012). Again, negative earnings surprises are seriously punished by stock market, therefore, firm managers are careful not to report negative earnings (Jarvinen and Myllymaki, 2016). In addition, firms engage in earnings management because they want to improve their credit rating, influence market price of shares, maintain or improve management reputation prior to shareholders meeting. Zalata and Robert (2015) and Graham et al., (2005) indicate that firms engage in earnings management so as to meet or beat analyst forecast or benchmark.

1.2.7.5 Stock Market Over-valuation or Mispricing

Prior studies indicate that substantially over-priced firms manage earnings to maintain the over-valuation (Jensen, 2005). On the contrary, Sawicki and Shrestha (2008) find no relationship between accruals earnings and stock market mispricing. In relation to earnings management, Madhogarhia et al., (2009) observe that growth firms manage earnings more aggressively than value firms because of severe asymmetric information. In a related study, Houmes and Skantz (2010) indicate that managers are not always sure whether their firms are over or under priced but they observe a positive relationship between the use of discretionary accruals and firms being over-priced. In addition, Badertscher (2008) finds that when firms have to restate their financial statements because of financial statements

irregularities, they tend to manage reported earnings upwards using both accruals and real activities based earnings in at least three years prior to the restatement year.

1.2.7.6 Internal Targets and Goals

In addition to the above, firm managers engage in earnings management when they want to meet internal targets and goals. They influence departmental budgets and key performance indicators to avoid the blame from top management or the effects of blowing the budget. Even though, not common in practice, the literature indicates that firms can reduce their profits in the current accounting period by adjusting for provisions and amortisation in order to cover next year's financial loss (Dechow et al., 2012; Barua and Cready (2008). This procedure exploits the prudence concept which is an acceptable practice. Despite the good intentions and reasons management have to engage in earnings management practices, investment is based on trust. Therefore, investor confidence is very important for the long term survival of the firm. Firm managers should work hard to protect shareholders interest and wealth as well as be careful not to break their trust.

1.3 Research Questions and Contributions

Previous studies on earnings management and religious social norms of the firm environment have noted a number of gaps in the literature, which provide the motivation for this study. First, these studies have only examined accrual-based and real activities and report that religiosity mitigates the accrual-based but real activities approach increases in a religious social norm environment (McGuire et al., 2012; Dryeng et al., 2012). At both national and international levels, no study has attempted an examination of the effect of religious social norms on classification shifting. Therefore, in Chapter 2 the study examines

for the first time whether religiosity is associated with income-decreasing special items or special revenue classification shifting. Second, the study examines whether classification shifting occurs in rural or urban areas, despite the high earnings quality often associated with the former. Previous studies (Zalata and Robert, 2015; Haw et al., 2011) observe that internal corporate governance mechanisms affect earnings management. Hence, this study investigates the effect of interactive terms in relation to corporate governance, audit tenure and the BIG4 auditors on classification shifting in a religious social norms environment. Moreover, the study provides different evidence of the interaction between religiosity and corporate governance variables, such as board size, board independence, audit committee, audit tenure and the BIG4 auditors. The evidence shows that religiosity is negative and significantly associated with classification shifting. Furthermore, the study highlights the monitoring role of religiosity, audit characteristics and governance variables in the pre- and post-Sarbanes Oxley Act (2002) period. In addition, the study demonstrates the effect of the geographic dispersion of segments and the impact of religiosity on misclassification, confirming that religiosity mitigates classification shifting in centralised segments but has no effect on misclassification in geographically dispersed segments. The research also shows that religiosity affects classification shifting in urban areas, despite the heterogeneous belief systems often associated with these areas, but that the effect is much more pronounced in rural areas. It is observed that religiosity serves as a monitoring mechanism to complement existing governance structures and external monitoring put in place by management to mitigate misclassification.

Furthermore, in Chapter 3 the study investigates the impact of religious social norms and firms' legal environment on both accrual-based and real activities earnings management.

Previous research (Behn et al., 2013; Callen et al., 2011) has shown the need to consider the legal environment when investigating the two approaches to earnings management. However, the literature has no evidence of the effect of interactions between the legal environment and religious social norms on accrual-based and real activities-based earnings management (McGuire et al., 2012; Dryeng et al., 2012). Consequently, this study examines for the first time the effect of interactive terms in relation to religiosity and the legal environment on earnings management. Interactions between religiosity, legal environment and governance variables are examined to assess their impact on earnings management practices in high and low religious areas, highest and lowest legal environment areas, and rural and urban areas in the U.S. The study also uses different measures of accruals and real activities to assess their impact on religiosity, legal environment and governance variables. Overall, it is found that religiosity is negative and significantly related to accrual-based earnings management, suggesting that manipulation of accruals decreases in a religious social norm environment, perhaps because of scrutiny by auditors, or ethical concerns and external monitoring. The study observes that in a religious social norm environment, firm managers favour real activities earnings management, but that the positive effect of religiosity on real activities is subdued when the legal environment interacts with religiosity. In addition, it is observed that corporate governance mechanisms decrease accrual-based and real activities-based earnings management and that religiosity complements existing monitoring systems in the firm to control earnings manipulation.

After examining the effect of the religious social norms of the firms' environment, legal environment and governance mechanisms on earnings management practices in the U.S.,

the study explores international evidence in Chapter 4. Although there have been previous studies on classification shifting and financial analyst monitoring, classification shifting and corporate governance in an international setting (Behn et al., 2013; Haw et al., 2011), little is known about the effects of country-wide religiosity, the individual dimensions of cultural perspectives and the legal environment on classification shifting in developed, emerging and developing countries. In addition, this study investigates the association between classification shifting and the interactive terms between country-wide religiosity and legal environment, and the individual dimensions of the cultural and legal environments in developed, emerging and developing countries. In the further analysis, different expectation models are used to compute unexpected core earnings, to exclude countries with large or insignificant firm year observations, and to break the data into high or low religiosity countries to assess their impact on classification shifting. Overall, the study observes that religiosity and legal environment decrease firm managers' incentive to misclassify core expenses in developed, emerging and developing countries, but that the negative impact is much more pronounced when country-wide religiosity interacts with the legal environment. It is found that individual cultural dimensions of power distance, masculinity and uncertainty avoidance facilitate expense misclassification in the three types of country, but that individualism and long-term orientation deter classification shifting in developed and emerging countries. However, the positive impact of power distance, masculinity and uncertainty avoidance on classification shifting in developing countries can no longer be demonstrated when the legal environment interacts with them.

Overall, to broaden the findings and knowledge on the relationship between religious social norms, the legal environment, and individual dimensions of culture and earnings

management practices at national and international levels, this study seeks to address the following research questions:

1. Do religious social norms, corporate governance and audit interactions affect misclassification, based on evidence from the U.S. (in Chapter 2)?

2. Do religious social norms and legal environment interactions affect accrual-based and real activities-based earnings management, based on evidence from the U.S. (in Chapter 3)?

3. Do country-wide religiosity, national culture dimensions and legal environment interactions affect classification shifting, based on global evidence (in Chapter 4)?

1.4 Structure of the Thesis

This thesis has five chapters and is organized as follows. Chapter 1 briefly discusses the aim of the thesis, the research questions, and the contributions, and reviews agency and social norms theories. Chapters 2, 3 and 4 are separate self-contained chapters which address the thesis research questions in detail. In particular:

In Chapter 2, the study provides new U.S. evidence on the impact of religiosity, BIG4 audit and corporate governance on the misclassification of core expenses or revenue into special items.

In Chapter 3, new U.S. evidence is provided by examining the effect of religiosity, legal environment and the interaction term between religiosity and the legal environment on accrual and real activities-based earnings management.

In Chapter 4, the study presents new international evidence (from 63 countries) on the relationship between country-wide religiosity, national dimensions of culture, legal environment and misclassification of core expenses into special items.

Finally, in Chapter 5 some concluding remarks are made and a brief summary given of the study's main results and limitations, as well as opportunities for future research.

Chapter 2: Impact of Religiosity, Corporate Governance and Auditor Characteristics on Classification Shifting- Evidence from the U.S.

2.1. Introduction

The aim of this study is to provide an empirical assessment of the extent to which the religious social norms of the firms' environment interact with corporate governance and the BIG4 audit firms to affect the misclassification of income-decreasing special items or special revenue items which may influence reported core earnings. The study fills the gap in the literature on managers' opportunistic misclassification of revenue and/or expense items in a religious social norm environment. It is important to ascertain whether the religious social norms of the firms' environment mitigate managers' opportunistic behaviour or economic motivations in classification shifting[1]. In economic terms, the study suggests that religious social norms might influence misclassification of special items in order to signal and help users to understand the firms' underlying financial performance, in line with previous research (Francis et al., 1996; Lougee and Marquardt 2004; Bowen et al., 2005). With regard to opportunistic behaviour, the study holds a similar view to earlier studies (McVay, 2006; Fan et al., 2010), that misclassifying core expenses or revenue items into special items aims to influence perceptions of the firms' performance in a biased way. Previous research indicates that highly religious individuals tend to hold more conservative views and higher moral standards than individuals with lower religious backgrounds (Terpstra et al., 1993; Barnett et al., 1996). Following these studies, Conroy and Emerson (2004) examine the association between religiosity and financial reporting and find that religiosity is negatively related to the use of accounting manipulation. Kennedy and Lawton

[1] Classification shifting does not involve GAAP violation; auditors and regulators do not scrutinize classification shifting as they do for accrual-based and real-activities earnings management (Fan et al., 2010; McVay, 2006).

(1998) observe that the higher the degree of religious social norms in an environment, the stronger their effect on the people who live and operate in that environment. Another strand of the literature (Terpstra et al., 1993; Barnett et al., 1996; Longenecker et al., 2004) provides evidence of the impact of religiosity on business ethics. For example, Davidson and Stevens (2013) as well as Weaver and Agle (2002) observe that business ethics is positively related to religiosity, especially when religion is an important part of a people's self-identity. Similarly, Welch et al. (1991) note that the prominence attached to religious social norms in an environment has a great impact on people's devotion to social norms, attitudes and beliefs. It should be stressed that firm managers' behaviour is shaped by the religious social norms of the population in the neighbourhood that surrounds them. This is because research by Omer et al. (2015) and McGuire et al. (2012) indicate that the social norms of the firm's environment shape and influence the behaviour of the people in the local environment in line with the social norms theory. As indicated, firm managers are agents of the firm according to agency theory and these firm managers make decisions for the firm on behalf of the principal (owners). The behaviour and decisions of agents, who have been entrusted with the responsibility of creating and maximising shareholders wealth, have positive or negative effects on the going concern of the organisation. Thus, behaviour at the firm-level is influenced by the social norms of the environment which affects the decisions, attitudes and behaviour of agents (firm managers) of the organisations.

The study extends the research in the area of classification shifting to examine whether religious social norms in the firms' environment influence misclassification of core expenses and/or revenue in order to influence market perceptions, influence share price or

beat analysts' benchmarks. Previous research documents evidence of misclassification in expense items and demonstrates that managers opportunistically shift core expenses (cost of goods sold and selling, general and administrative expenses) to special items (Zalata and Roberts, 2015; Behn et al., 2013; Haw, Ho and Li, 2011, Fan et al., 2010 and McVay, 2006); misclassify expenses in discontinued operations as operating expenses (Barua, Lin and Sbaraglia, 2010); and shift extraordinary items into operating expenses (Barnea, Ronen and Sadan, 1976) to inflate core earnings. Several factors have been noted to mitigate classification shifting: for example, good internal corporate governance (Zalata and Roberts, 2015; Veprauskaite and Adams, 2013; Xie, Davidson, & DaDalt, 2003); the monitoring role of financial analysts (Behn et al., 2013); and strong investor protection (Haw et al., 2011). Recently, Zalata and Roberts (2015) have found that high quality internal governance, in terms of the overall quality of board and audit committees, mitigates classification shifting. Similarly, other studies (Gonzalez and Garcia-Meca, 2014; Kim, Mauldin and Patro, 2014; Haw et al., 2011; Lin and Hwang, 2010; Harris and Raviv, 2008) indicate that strong corporate governance acts as a form of monitoring mechanism, controls devious managerial behaviour, mitigates classification shifting, and reduces information risk. For example, Xie, Davidson and DaDalt (2003) and Peasnell, Pope and Young (2005) observe a negative association between board tenure, proportion of independent directors and earnings manipulations. In addition, Hossain et al. (2011) observe that the relationship between board size, number of meetings and earnings management is negative. Moreover, audit committees (Abbott et al., 2003), number of meetings and financial expertise (Coles, Daniel and Naveen, 2008), CEO tenure (Cadman and Sunder, 2014), number of outside directors (Chau and Gray, 2010) and CEO reputation (Francis, Huang, Rajgopal and Zang, 2008) have been found to affect the quality of earnings and financial reporting.

There are two main motivations for this study. First, it examines the impact of religious social norms on managers' motivation to manage core earnings using core expenses or revenue items in classification shifting. Initially, the study employs McVay's (2006) expectation model to assess the existence of classification shifting and the impact of religiosity on it in the U.S. It concurs with the concerns raised by Fan et al. (2010) and excludes contemporaneous accruals from the original McVay (2006) model. Furthermore, the study replaces total accruals with working capital accruals (which exclude depreciation expenses and other exceptional items) to avoid any bias associated with the original McVay (2006) model, as reported by Athanasakou, Strong & Water (2009). In addition, the data is divided into rural and urban areas, high and low religious areas, geographically centralised and dispersed segments, as well as pre- and post- Sarbanes Oxley Act (2002) period, in order to assess the effect of religious social norms on classification shifting.

Second, the study includes the interaction terms between religiosity and corporate governance variables, religiosity and audit tenure, as well as religiosity and the BIG4 auditors, in line with Zalata and Roberts (2015). Using McVay's (2006) model to re-assess the impact of religiosity on classification shifting. The study responds to the call by Callen et al. (2011) and McGuire et al. (2012) to examine the extent to which religion affects earnings management on a broader scale by exploring the association between religiosity and misclassification of revenue items or core expenses into special items. The focus is on all U.S. states and uses the complete U.S. county-level religious dataset from *The Association of Religious Data Archives (ARDA)* database and all U.S. firms on the Compustat database. Overall, the study identifies 698 distinct counties that are the

headquarters of at least one of the firms on the Compustat annual database used in the analyses. Financial data is collected from all firms on the Compustat database between 2000 and 2015.

From the analyses, the study observes a significant negative association between religious social norms and classification shifting. The results suggest that religiosity mitigates managers' incentive for this shifting. Therefore, managers in a highly religious environment have no motivation to misclassify core expenses into special items or shift revenue items to meet capital market pressures or earnings targets. The study finds that religiosity is negatively related to classification shifting in firms located in urban areas, in the light of the low earnings quality or heterogeneous beliefs systems often associated with urban areas; however, the negative effect is acute in rural areas. In further analysis, the interaction between religiosity and corporate governance, audit tenure, and the BIG4 auditors is examined, and it is found that in a religious social norms environment, their effect is more pronounced and negatively significant. Finally, the study finds that religiosity decreases misclassification in geographically centralised segments but has no effect on geographically dispersed ones. It is also found that religiosity combats misclassification in pre- and post- financial crisis or SOX periods, but that the complementary role of religiosity was acute during and after the SOX Act (2002) was implemented.

The chapter proceeds as follows. Section 2.2 (1) presents the literature and develops the hypotheses, section 2.3 provides the research design and discusses the empirical methodology, and section 2.4 describes the data, sample selection and descriptive statistics. Section 2.5 discusses the empirical results, Section 2.6 presents several robustness checks, and section 2.7 provides the conclusion.

2.2. Literature Review and Hypothesis Development

In this section, the study provides extensive literature review and develops hypotheses for the study. In particular, the study provides literature on core earnings, bottom-line net income, religious social norms, misclassification, corporate governance and auditor characteristics.

2.2.1 Core Earnings and Net Income (Bottom-line Earnings).

Fan and Liu (2015) indicate that there are two categories of earnings. These are normally referred to as operating or core earnings and non-operating earnings. Core earnings are referred to as the income from operations. Core earnings are expected to continue into the future. However, non-operating earnings are non-recurring and are not expected to affect future earnings. Prior studies (Zalata and Robert, 2015; McVay (2006) indicate that managers opportunistically move core expenses into special items in order to increase reported core earnings while the bottom-line net income remains the same. McVay (2006) defines core earnings as the difference between core expenses and net sales. On the other hand, core expenses are the aggregate of cost of goods sold, selling, general and administrative (SG&A) expenses (McVay, 2006; Fan et al. 2010). The market focuses on core earnings which exclude non-recurring expenses; this provides managers with the incentive to engage in misclassification of core expenses to boost core earnings without interfering with bottom-line net income. It should be noted that core expenses are not the same as operating expenses. For example, operating expenses relate to day to day running expenses of the business such as; advertising expenses, office expenses, accountancy fees, legal expenses, insurance expenses, license fees etc. The bottom line net income or earnings are derived as income after deducting and adjusting for all expenses (core, non-core,

operating expenses, discontinued operations expenses etc.) during the financial year that are attributable to shareholders.

2.2.2 Misclassification of Income Statement Items

Zalata and Robert (2015) and McVay (2006) state that misclassification or classification shifting does not involve the recognition or the measurement of income statement items. Rather, it involves shifting core expenses into non-core or non-recurring expenses on the income statement. The process involves shifting core expenses into special items in order to boost or inflate the firm's reported core earnings instead of the bottom line net income. The main aim of misclassification is to inflate the firm's reported core earnings on the income statement. McVay (2006) observe that special items are by definition infrequent or transitory. Therefore, some stakeholders find it difficult to understand their nature and weight on income statement. As a result, some managers opportunistically misclassify a portion of their core expenses as special items in order to inflate the firm's core earnings. The extant literature indicate that classification shifting may be preferred to other methods of earnings management since it does not change the GAAP net income, does not affect future earnings, does not involve reversal of accruals, does not involve loss of future revenue from forgone opportunities and has limited scrutiny from auditors (Athanasakou et al., 2009; McVay, 2006). Below illustrates classification shifting on a simple income statement line items and presentations.

Illustration A: Proforma Income Statement

	£m
Sales Revenue	XXXX
Deduct: Cost of Sales	(XXX)
GROSS PROFIT	**XXXX**
Deduct: Selling, General & Administrative Expenses	(XXX)
CORE EARNINGS	**XXX**
+/- Special Items	(XX)
+/- Tax and Interest Expense/Income	(XX)
-/- Other Non-recurring Expenses (e.g. Disc. Operations)	(XX)
NET INCOME (BOTTOM-LINE EARNINGS)	**XXX**

As can be seen, when firm managers want to engage in misclassification to opportunistically increase the firm's core earnings, they will shift some core expense (selling, general and administrative (SG&A) expenses) into special items down the income statement. These special items can be (negative or positive) income-decreasing or income-increasing. McVay (2006, p. 506) define special items as events resulting from a firm's ordinary course of business activities but are unusual or infrequent in occurrence which must be separately disclosed in the income statement or the notes to the financial statements. Her studies provide examples of special items to include: "*write-downs or write-offs of equipment, inventories, receivables, or intangibles; gains or losses from the sale of equipment or investments and special one-time charges resulting from corporate restructuring"* As illustrated in the above proforma income statement A, the red arrow points towards special items and shows misclassification of SG&A expenses into income-decreasing special items. As core earnings increase because of the misclassification, income-decreasing special items also increase. On the other hand, firms can also

misclassify special revenue items upwards; this is referred to as income-increasing special items.

Again, as illustrated in the proforma income statement B below, the arrow indicates an upward misclassification of special revenue items to inflate the reported core earnings. The blue arrow points upwards, which is an indication of classification shifting involving special revenue items to increase reported core earnings. Therefore, there is a positive relationship between core earnings and income-decreasing special items when firms are engaged in core expense classification shifting. Researchers that have investigated classification shifting involving special items, use Special Items (#17) on Compustat database. Recently, the FASB Accounting Standards updates have eliminated extraordinary items from the income statement presentation (Subtopic 225-20). The standard setters and stakeholders argue that the concept of extraordinary items cause uncertainty because firm managers are not sure when to classify an item as unusual or infrequent. Again, other stakeholders are of the view that extraordinary items are rare nowadays in the current practice and classifying them is a mere waste of time. However, even though special items are not formally defined by FASB Accounting Standards, the amendment allows the following to be presented and disclosed in the income statement. *"A material event or transaction that an entity considers to be of an unusual nature or of a type that indicates infrequency of occurrence or both shall be reported as a separate component of income from continuing operations. The nature and financial effects of each event or transaction shall be presented as a separate component of income from continuing operations or, alternatively, disclosed in notes to financial statements" (*Subtopic 225-20-45-16).

Illustration B: Proforma Income Statement

	£m
Sales Revenue	XXXX
Deduct: Cost of Sales	(XXX)
GROSS PROFIT	**XXXX**
Deduct: Selling, General & Administrative Expenses	(XXX)
CORE EARNINGS	**XXX**
+/- Special Items	XX)
+/- Tax and Interest Expense/Income	(XX)
-/- Other Non-recurring Expenses (e.g.Disc. Operations)	(XX)
NET INCOME (BOTTOM-LINE EARNINGS)	**XXX**

2.2.3 Religious Social Norms

From the viewpoint of social norm theory, managers of firms operating in religious environment with diverse social norms exhibit varied behaviours (Tayler and Bloomfield, 2011). In fact, individuals' decisions are shaped by the moral values and social norms of the environment in which they live or work. The resilience of religious social norms has presented great surprises in recent decades (Renneboog and Spaenjers, 2011; Hilary and Hui, 2009). For instance, previous research has established the relationship between religion and personal behaviour (Lehrer, 2004, p.180); religion and development (Mersland, D'Espallier and Supphellen, 2012; Ter Haar & Ellis, 2006); and religion, economic attitudes and household income (Renneboog and Spaenjers, 2011).

Previous researchers have also indicated that religion affects individuals' behaviour and that religiosity enhances individuals' ethical values and attitudes (Tayler and Bloomfield, 2011; Vitell, 2009; Parboteeah, Hoegl and Cullen, 2008). This view is also corroborated by

Shu, Sulaeman and Yeung (2012), who find that one's level of religiosity is positively correlated with high ethical values. According to Lehrer (2004), personal religious values such as discipline (Kennedy and Lawton, 1998), accountability (Iannaccone, 1998) and honesty (Keister, 2003) have the potential to influence the performance of firms and, for that matter, the characteristics of individuals. In a related study, Barro and McCleary (2003) assess the impact of religiosity on performance and observe that managers can maintain high levels of success and performance irrespective of the demographic and cultural background in which the moral values are implemented. Sunder (2005) underscores the importance of religious values to the stakeholders of the firm and finds that the absence of religiosity can potentially harm stakeholders and affect the whole system and performance of the organisation (Omer et al., 2015).

2.2.4. Classification Shifting and Religious Social Norms

Previous studies document evidence of earnings management using accrual and real-activities approaches (Kim and Park, 2014; Wongsunwai, 2013; Badertscher, 2011). Accrual management has a high cost of detection and involves borrowing earnings from future periods, either through acceleration of revenues or by delaying expenses (Donelson, Mcinnis & Mergenthaler, 2013; Gao, 2013; Gerakos and Kovrijnykh, 2013). On the other hand, real activities have a lower cost of detection and involve the provision of discounts to boost sales and the cutting down of discretionary expenses, such as advertising and research and development costs, to increase earnings (Cohen and Zarowin, 2010; Gunny, 2010; Roychowdhury, 2006; Graham, Harvey & Rajgopal, 2005). In fact, previous studies aimed at establishing the association between religion and earnings management (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012) have ignored classification shifting as

an earnings management method. McVay (2006) indicates that classification shifting re-arranges income statement items and does not change the bottom-line reported earnings, but does involve classifying operating expenses as discontinued operations (Barua et al., 2010); classifying operating expenses as extraordinary items (Barnea, Ronen and Sadan, 1976); classifying operating expenses as special items (Fan et al., 2010; McVay, 2006); and classifying other operating income as special items (Noh et al., 2014). Indeed, establishing the link between individuals' religious values and economic development has been extensively covered in the economics literature, but the link between religion and classification shifting is missing in the accounting literature. Recent studies (Zalata and Robert, 2015; Fan et al., 2010 and McVay, 2006) indicate that whilst the various methods of earnings management raise expectations of future performance, both real-activities and accrual-based earnings management have the effect of reducing future or past earnings. Consequently, the reputation and the quality of the company are compromised (Cao et al., 2012). With income-decreasing classification shifting, McVay (2006) indicates that there is no change in reported bottom-line earnings; rather, core earnings are inflated as recurring items are shifted to non-recurring and exceptional items, leading to a positive relationship between core earnings and special items (Behn et al., 2013). There is no implication for future reported earnings (Barua et al., 2010), therefore there is limited external monitoring and vigilance (Nelson et al., 2002).

Whilst some methods of earnings management do not seem to be fraudulent, the anti-manipulative culture of religious groups serves as a strong deterrent against all forms of manipulative behaviour, both at the firm and country-wide levels (Callen et al., 2011). For example, Christians are admonished in the Holy Bible to observe the following: ***"****And put*

on the new nature (the regenerate self) created in God's image, [Godlike] in true righteousness and holiness. Therefore, rejecting all falsity and being done now with it, let everyone express the truth with his neighbour, for we are all parts of one body and members one of another" (Ephesians 4:24-25 AMP). Similarly, Friedman (2002) observes that the Rabbis in Judaism teach members to *"not put a stumbling block before a blind person to condone any form of manipulative activity even if there is no gain for the manipulator".* In addition, the teaching in the Holy Quran is no different; Surah 4:29 commands that *"believers should not consume one another's wealth unlawfully".* The ethics literature argues that managers with strong religious backgrounds have strong morals, are less likely to engage in questionable business activities, and are more likely to demonstrate self-control and ethical intentions (McCullough and Willoughby, 2009; Vitell, 2009).

On ethical grounds, previous studies (McGuire et al., 2012; Dryeng et al., 2010; Grullen et al., 2010) indicate that religiosity influences accrual-based earnings management and curbs financial reporting irregularities. For example, Callen et al. (2011) find no relationship between the religious social norms of the firms' environment and accrual-based earnings management. Dryeng et al. (2010) studied the relationship between religious adherence and accrual-based earnings management and found that accruals of managers in areas of high religious adherence demonstrate minor departures from anticipations, and that deviations, when they occur, tend to improve the time series mapping of accruals into cash flows. However, McGuire et al. (2012) report a negative association between religiosity and accrual-based management, but a positive relationship between real-activities based earnings management and religiosity. This finding is consistent with Hilary and Hui (2009), who observe that firms headquartered in highly religious environments exhibit traditional

corporate investing behaviour. Indeed, classification shifting re-arranges income statement items and does not change the bottom-line reported earnings. Therefore, previous studies (Fan et al., 2010; McVay, 2006) observe that auditors and regulators do not scrutinize expenses misclassification. Consequently, it is probable that managers in areas with strong religious backgrounds might shift core expense items downwards to improve reported core earnings. Scott (1995) argues that earnings management can be beneficial, by signalling managers' inside information to investors. Notwithstanding the above discussions, it is unethical business practice in a religious social norms environment to hide behind the negligence of regulators and auditors to engage in manipulation of financial reports or to manage core earnings upwards/downwards to mislead stakeholders. Therefore, this study posits that religiosity in a firm's environment might complement existing monitoring mechanisms put in place by management to mitigate expenses misclassification, or it is probable that managers in areas with strong religious backgrounds would misclassify core expenses into special items to increase reported core earnings in order to signal their inside information to investors. The above arguments therefore lead to the following hypothesis:

H1a Classification shifting using income-decreasing special items is related to the religiosity of the firms' environment.

On the other hand, McVay (2006) and Bulkeley (2002) indicate that managers might misclassify revenue items upwards in order to increase reported core earnings. Previous research (Alfonso, Cheng and Pan, 2012; Cheon, 2011) indicates that firms' operating income covers all items, except investment income and financial cost when operating income is low. Moreover, Noh et al. (2014) investigate whether managers engage in

classification shifting using both revenue and expenses items. They find that firms generally shift other income to influence reported core earnings, but engage in shifting of core expenses into special items simply to meet or beat earnings benchmarks. Therefore, it is probable that firms misclassify revenue items to influence reported core earnings. McVay (2006) suggests that future research should consider upward classification shifting of revenue items. However, previous studies in the business ethics literature (Terpstra et al., 1993; Barnett et al., 1996; Weaver and Agle, 2002; Conroy and Emerson, 2004; Longenecker et al., 2004) indicate that providing misleading financial information is ethically and morally unacceptable. In addition, the teachings of the various religious groups forbid the mis-reporting of financial information. For example, The Holy Bible says 'You shall not steal, nor deal falsely, nor lie to one another. 'You shall not swear falsely by My name, bear false witness so as to profane the name of your God; I am the LORD (Exodus 20:15; Leviticus 19:11-12). The Holy Quran also states that "It is not for any Prophet to take illegally or falsify a part of booty (Ghulul), and whosoever deceives his companions as regards the booty, he shall bring forth on the Day of Resurrection that which he took (illegally). Then every person shall be paid in full what he has earned, and they shall not be dealt with unjustly" (Surah 161). In addition, the Securities and Exchange Commission (SEC) (2000) has expressed serious concern over the improper misclassification of line items on the income statement, especially revenue items, thus prompting the SEC to regulate individual line items on financial statements. Therefore, this study investigates whether or not firms in the U.S. are engaged in shifting special revenue items to boost total revenue or reported core earnings. Secondly, it examines the impact of religiosity in the firms' environment on upward misclassification of special revenue. Following the above discussions, it is examined whether managers in religious social norm

environments might or might not be involved in opportunistic or economic misclassification of special revenue items to lower the expectations of the market, hide certain internal information from shareholders, or mislead investors and financial analysts. The hypothesis that follows is stated below:

H1b: Classification shifting using special revenue items is related to the religiosity of the firms' environment.

2.2.5. Classification Shifting, Religiosity and Corporate Governance

A sound corporate governance mechanism requires superior board independence, autonomous audit committees and separation of the CEO and the chairman roles (Kim, Mauldin and Patro, 2014; Gonzalez and Garcia-Meca, 2014; Jo and Harjoto, 2011). Interestingly, previous research on corporate governance has concentrated on the characteristics of corporate governance, including board structure and independence; ownership structure and influence; financial transparency and disclosure; and financial stakeholders' rights and relations on performance, shareholder value and financial reporting (Ashbaugh-Skaife et al., 2006; Cullen and Christopher, 2002). Chau and Gray (2010) also examine the relationship between managerial ownership and financial reporting and find that managerial ownership is negatively associated with the levels of voluntary financial disclosure. Previous research indicates that corporate governance in the area of public ownership allows a large number of investors to press for full disclosure and quality financial reporting from management (Chau and Gray, 2002; Cullen and Christopher, 2002). Publicly-owned companies have more shareholders and therefore are expected to exert more pressure on the board for more disclosure and extra information as a result of accountability issues.

However, some studies (Kim et al., 2014; Uddin and Choudhury, 2008) indicate that some shareholders in publicly-owned companies do not understand the financial reports presented at the annual general meeting (AGM) and therefore cannot influence financial reporting quality. In addition, board independence is regarded as a key corporate governance mechanism that affects financial reporting quality because it is expected to make decisions that protect the interests of shareholders. Therefore, research indicates that financial reporting quality is positively associated with board independence, estimated as the number of independent directors on the board. In a related study, Li and Srinivasan (2011) observe that monitoring quality and financial reporting are enhanced when the roles of CEO and chairman are separated. Other studies (Kim et al., 2014; Jo and Harjoto, 2011) state that separating the two roles strengthens the corporate governance mechanism and internal control system for effective financial reporting and performance management, but they observe that several companies that have capable and effective boards are managed by individuals with a combination of CEO and chairman positions. In fact, a key influence on corporate governance mechanisms is the presence of audit committees in an organisation (Turley and Zaman, 2004, 2007). The audit committee has the responsibility of ensuring effective internal control procedures, approving the choice of accounting policies, and influencing the financial reporting and disclosure quality within an organisation. Li and Srinivasan (2011) indicate that there is a positive association between the audit committee and financial reporting quality.

Various studies (Agrawal and Chadha, 2005; Klein, 2002) observe that earnings management or restatements decrease when independent directors with banking experience or professional accounting backgrounds are on the audit committee. Previous research has

also indicated a positive association between the market reaction and the appointment of a board member with an accounting background to the firm's audit committee. For example, Davidson and Stevens, (2013) observe that the effectiveness of the audit committee is enhanced and the integrity of financial reporting is significantly improved when there is the presence of a financial expert on the audit committee. Similarly, when ownership is concentrated in the hands of just a few individuals, these shareholders exert pressure on the board of directors, to the detriment of external creditors and non-controlling interests. Likewise, when the corporate governance system allows for independent scrutiny of managerial decision-making, shareholder value is enhanced and all stakeholders benefit (Ashbaugh-Skaife et al., 2006).

Similarly, Zalata and Roberts (2015) observe that high quality internal governance in the board and audit committees mitigates classification shifting. Several studies (Gonzalez and Garcia-Meca, 2014; Kim et al., 2014; Haw et al., 2011; Lin and Hwang, 2010; Harris and Raviv, 2008) indicate that strong corporate governance acts as a form of monitoring mechanism, controls devious managerial behaviour, mitigates classification shifting, and reduces information risk. In addition, Hossain et al., (2011) observe that the relationship between board size, the number of meetings and accruals management is negative. Moreover, audit committees (Abbott et al., 2003); number of meetings and financial expertise (Coles et al, (2008); number of outside directors (Chau and Gray, 2010); and CEO reputation (Francis et al., 2008) have been found to affect financial reporting. Unlike the studies discussed above, the current study centres on the interaction between corporate governance (defined in this study as the presence of an audit committee, strong board size and independent board) and the religiosity of the firms' environment on classification

shifting. The literature examines the relationship between corporate governance and other aspects of the organisation, including financial statement disclosure or reporting (Ashbaugh-Skaife et al., 2006; Faber, 2005; Srinivasan, 2005; Cullen and Christopher, 2002). Recently, several studies have also examined the association between religiosity and financial reporting irregularities (McGuire et al., 2012; Callen et al., 2011; Grullon et al., 2010). However, no study has examined religion and misclassification in association with the effect of the interaction between corporate governance and religiosity on classification shifting in the U.S.

Therefore, it is probable that the influence of religious social norms on classification shifting would be significant or insignificant for firms with good internal corporate governance. On the other hand, it could also mean that the influence of religious social norms could complement internal corporate governance mechanisms in mitigating classification shifting. Following the above discussions and in line with previous studies (Zalata and Roberts, 2015), this study uses board size, board independence and audit committees as proxies for internal corporate governance mechanisms to examine the effect of religiosity on classification shifting. The above discussions lead to the following hypothesis:

H2a: The interaction between religiosity and internal corporate governance mechanisms is related to managers' classification shifting behaviour.

2.2.5.1 Auditor Characteristics

On the other hand, several studies (Haw et al., 2011; Francis and Yu, 2009; Francis and Wong, 2008; Fan and Wong, 2005; Myers and Omer, 2003) indicate that auditor

characteristics (defined in this thesis as Big 4[2] auditors and auditor tenure) have been noted to be negatively associated with accruals earnings management, since high quality auditors complement existing corporate governance mechanisms. The extant audit literature documents evidence that Big 4 auditors are larger in size, have better training programmes and provide higher audit quality than others (Eshleman and Guo, 2014). There is a general consensus that larger audit firms have a reputation to protect shareholder interests and therefore will not sacrifice their independence on any given audit engagement (Boone et al., 2010; DeAngelo, 1981). The larger audit firms have more resources to embark on training programmes that will equip the auditors to become better trained auditors than small audit firms. For example, Big 4 auditors are noted for their conventional approach in issuing audit reports (Francis and Krishnan, 1999). Again, investors value the financial reports of firms audited by the Big 4 auditors and this is consistent with investors reposing confidence in the earnings quality of firms audited by Big 4 auditors. Also, prior studies indicate that firms audited by Big 4 auditors report lower discretionary accruals, suggesting that higher earnings quality is associated with Big 4 auditor clients (Hohenfels, 2016; Eshleman and Guo, 2014). Again, several studies (e.g. Asthana and Boone, 2012; Choi et al., 2012) that have examined audit quality have used Big 4 auditors as control variables, even though, there are limited studies that have examined the impact of Big 4 or non-Big 4 auditors on higher audit quality. For example, Choi et al., (2012) find that the relationship between Big 4 auditors and accruals-based earning management is negative. Similarly, Asthana and Boone, (2012) observe that firms audited by Big 4 auditors have lower

[2] In this thesis, the study uses the term Big 4 to refer to the Big 5 or Big 4 accounting firms in line with studies by Eshleman and Guo, (2014).

magnitude of discretionary accruals and are less likely to beat or meet analysts' earnings per share (EPS). A higher level of discretionary accruals is an indication of management opportunistic behaviour to engage in earnings management. This suggests that Big 4 auditors have low tolerance for earnings management (Boone et al., 2010) and Lennox and Pittman (2010) find that firms audited by Big 4 are less likely to engage in fraudulent transactions or commit fraud. Furthermore, Haw et al. (2011) find that in East Asia classification shifting decreases with firms audited by the Big 4 and external auditors with short tenures are associated with lower earnings quality. Francis and Yu (2009) study the relationship between higher audit quality and the larger offices of Big 4 auditors and observe that clients in larger offices engage in less aggressive earnings management behaviour. The study concludes that audit quality is higher in larger Big 4 offices, but makes no claim that there is a positive association between smaller offices and low audit quality. In a related study, Francis and Wong (2008) examine the relationship between earnings quality, investor protection environment and the dichotomy between Big 4 and non-Big 4 audits. They indicate that Big 4 auditors are concerned about their reputation and the cost of misreporting, so are more likely to enforce higher earnings quality, whereas non-Big 4 auditors are less concerned about their reputation capital and dismissal from clients, resulting in a compromise of the quality of financial reporting. Again, they find that earnings quality is higher when the investor protection environment is strong and firms are audited by the Big 4.

Focussing on auditor tenure, there is a growing concern that longer auditor tenure impairs auditor independence and lowers audit quality (Hohenfels, 2016). Prior studies (Francis and Wong, 2008; Myers et al., 2003) observe that audit tenure affects audit quality, earnings

management, going concern, lawsuit against auditors and investors' confidence. Kwon et al.; (2014) indicate that investors' response to financial statements is often linked to how they perceive and evaluate the auditor's ability to detect material misstatements and correct accounting irregularities. When investors lose confidence in audit quality, this could affect the credibility of financial information, suggesting that that longer auditor tenure decrease audit quality, especially in countries with poor accounting information. Myers et al. (2003) find that longer auditor tenure influences higher quality reporting and earnings management negatively. Similarly, Davis et al. (2009) find that short-and-long term auditor tenure provide an incentive for firm's use of discretionary accruals to either beat or meet analyst forecast before Sarbanes-Oxley Act 2002 (SOX) was implemented. The study indicates that earnings management was high in the pre-SOX period because of higher auditor tolerance and long-term auditor-client relationships.

However, McGuire et al. (2012) examine the possibility that managers of firms in highly religious areas might recognize real activities earnings management as less unethical or risky, because real activities do not violate GAAP. They find a positive association between religiosity and both measures of real earnings management and observe that auditor vigilance is lower, as real activities do not break accounting regulations. Similarly, other research (Behn et al., 2013; Fan et al., 2010; McVay, 2006) reports that misclassification of core expenses into special items does not change GAAP earnings, thus limiting the scrutiny of auditors and regulators (Nelson et al., 2002). Following the above, it is possible that auditor characteristics could complement religious social norms of the firms' environment, might or might not influence misclassification of special items in a religious social norms environment to boost reported core earnings. Therefore, it is important to

show that the results of this study are not influenced by auditor characteristics (Big 4 auditors and auditor tenure) in the firms. The following hypothesis is therefore formulated for testing:

H2b: The interaction between religiosity and BIG4 auditor and between religiosity and auditor tenure is related to managers' classification shifting behaviour.

2.2.6. Classification Shifting and Religiosity in Rural and Urban Areas

Loughran and Schultz (2005) and Loughran (2007) observe that reported earnings quality is higher in rural areas and that rural companies are more likely to report voluntary management earnings forecasts. Similarly, Ucran (2007) finds that relative to urban firms, rural firms provide higher quality financial information, better corporate disclosures and better quality reported earnings. Conventionally, previous research (McGuire et al., 2012; Ucran, 2007) has indicated that those who live in rural areas tend to exhibit more traditional views and religiosity than their counterparts in urban areas. Similarly, McGuire et al. (2012) examine religiosity and accrual-based earnings management in rural and urban areas and observe that religiosity decreases earnings management in rural areas, despite the higher earnings quality associated with these areas. Ucran (2007) indicates that rural areas are associated with fewer local investors, poorer liquidity and low investment, leading to higher costs of capital and lower market value. Consequently, managers of rural firms provide information to minimise the adverse effects of the areas in which they are situated. Previous studies also argue that managers of rural firms may provide better corporate disclosures to maintain their personal reputation in society because they interact socially with potential investors and other stakeholders. In contrast, in urban settings it is possible for managers to distance their social life from employees and potential investors (Loughran, 2007; Ucran,

2007; Loughran and Schultz, 2005). Therefore, managers of urban firms might be involved in the classification shifting of special items because they might feel less pressure to maintain their personal reputation. On the other hand, when management in rural firms seeks private benefits, they might try to engage in misclassification to hide information from the public at the expense of shareholders, which is likely to be manifested in classification shifting and lower earnings quality. Following the above discussion, it is important to show that our results concerning the impact of the religious social norms of the firms' environment on classification shifting are not influenced by the high or low earnings quality attributable to firms headquartered in rural or urban areas. The above discussions lead to the following hypothesis:

H3: Religiosity in firms' headquarters could affect managers' classification shifting behaviour differently in urban and rural areas.

2.3. Research Design and Empirical Methodology

2.3.1 Measuring Religiosity

This study utilises the religious dataset published by the Religious Congregations and Membership Study (RCMS) between 2000 and 2010 to measure the strength of religious social norms. It uses these datasets to create a proxy for religiosity. The religiosity dataset is derived from survey by the Association of Statisticians of American Religious Bodies (ASARB), and the results are published on the website of the Association of Religion Data

Archive (ARDA). The survey consists of an average of 173 religious bodies[3] and a total of 248,957 congregations, with an average of 150,686,156 adherents. This represents 51.9% of the average U.S. population during the period between 2000 and 2010. The average percentage of population showing religiosity and religious adherence in each U.S. county is 64.4%, and respondents exceeded 55.9% of the total population from each county. Religious adherents consist of all members, full members, communicants or non-communicants, baptized or non-baptized, regular attendants, participants of weekly religious activities and those who consider religion as an important part of their life.

The dataset is then scaled by the total county population as reported by U.S. Census Bureau of that same period. In theory, the higher the percentage of religious adherents in a county, the higher the impact of religious social norms on the firms headquartered there. Therefore, the study uses the total number of religious adherents per capita, in line with previous studies (Grullon et al., 2009; Hout and Greely, 1998). Overall, 698 distinctive counties are identified that are the headquarters of at least one of the firms on the Compustat annual database used in our analyses between 2000 and 2015. The county-level religiosity scores are matched to their respective U.S. States by merging them by year, using the state code identifiers from Compustat's company location code where firms are headquartered in order to derive the state-level religious dataset. The study uses religious datasets covering all U.S. states. The data requirement for each dependent and independent variable is a function of the number of observations and tests required for the analysis.

[3] Of this, there were on average 154 Christian denominations and associations (including Messianic Jews, Latter-Day Saints, and Universalist groups); there were also counts of Shinto, Sikh, Jain, National Spiritualist Association Congregations, and several congregations and adherents from three Buddhist groupings, four Hindu groupings, Bahas, four Jewish groupings, Zoroastrians and Muslims.

As observed by previous research (Dyreng et al., 2012; Hilary and Hui, 2009), the definition of the number of adherents is potentially subjective, therefore it introduces bias and noise into the measure of religious adherence. ARDA does not provide the characteristics of those who do not respond, rendering the results incomplete and biased, despite the fact that the high level of coverage minimises the bias associated with the response rate. Finke and Scheitle (2005) observe that the majority of African-American denominations were not asked to participate in the RCMS, yielding undercounts of total adherents in some counties, hence there is an element of sampling bias. Fortunately, the 2000 and 2010 RCMS county-level data files contain an estimated adjustment for the total number of adherents, which the study collected when constructing religious adherence. To construct religious adherence for sample years between 2000 and 2010, this study follows previous research (Dyreng et al., 2012; Hilary and Hui, 2009; Alesina and La Ferrara, 2000) and linearly interpolates using RCMS religious adherence values from 2000 and 2010. For years subsequent to 2015, the study extrapolates using the slope of the line fitted between the 2000 and 2010 data points. This procedure yields annual county- level estimates of religiosity.

Table 2.1 provides descriptive statistics for the measure of RELIGIOSITY (REL) and shows that religiosity in the U.S. is declining, from an average of approximately 53% in 2000 to an average of 48% in 2010 in each county. This is consistent with the 2008 American Religious Identification Survey, which reports a substantial decline in religiosity in the U.S. population between 1990 and 2008. In addition, Table 2.1 indicates that approximately 54% of all people in each U.S. county are affiliated with a religion, attend a

religious activity or consider religion to be important in their life. The mean age and population with higher education are approximately 40 years and 86% respectively. The mean natural logs of population and income are 2.6 million and $10,340, but the original data shows a mean of 3.9 million per county and a mean household income of over $91,000. Approximately 30.56% of the population are classified as minorities and 42% are affiliated with the Republican political party, in line with previous studies (McGuire et al., 2012; Omer et al., 2015).

Table 2.1: Descriptive Statistics of Religiosity and Demographic Variables

Variable	Mean	Std. Dev.	Q1	Median	Q3	Skewness	Kurtosis
REL	53.5	18.07	36.27	52.47	63.33	0.83	2.69
RELAdh – 2000	53	18.6	39.4	51.1	64.7	0.74	2.98
RELAdh – 2010	48	15.6	24.6	46.8	52.3	0.88	2.68
AGE	40.06	1.79	40.01	40.28	41.37	-0.82	2.57
EDUC	85.64	2.54	83.5	87.1	87.52	-1.05	2.68
POPN	2.59	0.07	2.51	2.58	2.65	-0.48	1.47
MIN	30.56	12.38	19.65	25.76	38.28	0.91	2.62
POL	41.52	3.09	38.76	40.87	42.57	0.08	2.64
INCOME	10.53	0.08	10.59	10.64	10.70	-1.03	2.48

Notes: Religiosity (REL) = is the variable of interest, measured as the average of U.S. counties' religiosity scores weighted by their population for years 2000 and 2010. RELAdh = a measure of religious adherence for U.S. counties in 2000 and 2010. The Association of Statisticians of American Religious Bodies (ASARB) compiles the religiosity datasets, which are published by the Association of Religion Data Archive (ARDA). POPN = natural log of the estimate of the population for each U.S. state in millions; INCOME = household income for each U.S. state in ten thousands ($), estimated by the U.S. Census Bureau; EDU = a measure of the adult population of each U.S. state with a college education, estimated by Gallup interviews; AGE = average age of residents of each U.S. state, based on the responses from Gallup interviews; MIN = percentage of racial minorities in each U.S. state, based on responses to the Gallup interviews; and POL = percentage of the population that are affiliated with the Republican political party (McGuire et al., 2012).

In the robustness tests, the study use the Gallup religious databases for the twenty most and least religious U.S. states for the same study period. Based on the responses collected by Gallup on whether religion is important, and whether respondents attend religious activities weekly or are affiliated with religion, Mississippi emerged as the most religious state, whilst Vermont is the least religious state. The most religious states are mainly in the South, with the exception of Utah, while the least religious states are concentrated in New England and the West.

Table 2.2: Comparison of Most and Least Religious States in the US

Ten Most Religious States in the U.S.	Ranking Top States	Ten Least Religious States in the U.S.	Ranking Bottom States
Mississippi	1	Vermont	1
Utah	2	New Hampshire	2
Alabama	3	Maine	3
Louisiana	4	Massachusetts	4
South Carolina	5	Oregon	5
Tennessee	6	Nevada	6
Georgia	7	Washington	7
Arkansas	8	Connecticut	8
North Carolina	9	Hawaii	9
Oklahoma	10	District of Columbia	10

Notes: Table 2.2 shows a comparison of the most and least religious states in the U.S., as compiled by Gallup. Since 1965, Gallup has conducted interviews about U.S. adults' religiosity. The results over the years suggest that religious attitudes are very stable, consistent with ASARB studies. The percentage of U.S. adults who consider religion to be important according to Gallup are as follows: 1990 = 58 percent; 2000 = 58 percent; 2005 = 55 percent; 2006 = 56 percent; 2007 = 56 percent; 2008 = 54 percent; 2009 = 56 percent; 2010 = 56 percent.

2.3.2. Measuring Unexpected Core Earnings Classification Shifting

To estimate unexpected core earnings, the study first focuses on the allocation of expenses between core expenses and special items. Secondly, it focuses on the misclassification of special revenue items into total revenue to increase reported core earnings. The study expects core earnings to be overstated when core expenses or revenue items, are misclassified, and anticipates that when managers deliberately misclassify core expenses or special revenue, unexpected core earnings will be positively associated with special items. The study employs McVay's (2006) and Athanasakou et al.'s (2009) expectation model and makes estimates of the coefficients, which are used to compute normal core earnings; equation (1) is run cross-sectionally for each industry-year using the Compustat industry classifications. The unexpected core earnings (UNEXP_CE) are then computed as the difference between reported core earnings (REP_CE) and expected core earnings (NOR_CE) for each firm.

$$NOR\_CE_t = \beta_0 + \beta_1 CE_{t-1} + \beta_2 ATO_t + \beta_3 ACCRUALS_{t-1} + \beta_4 ACCRUALS_t + \beta_5 \Delta SALES_t + \beta_6 NEG\_\Delta SALES_t + \varepsilon_t \ , \quad (1)$$

where NOR_CE_t is the core earnings before noncore special items and depreciation, calculated as (Sales – Cost of Goods Sold – Selling, General and Administrative Expenses)/Sales. CE_{t-1} is the lagged core earnings and ATO_t is the asset turnover ratio. In line with previous studies (McVay, 2006; Fan et al., 2010), this study includes $ACCRUALS_{t-1}$, which is the previous year's operating accruals and $ACCRUALS_t$, which is

current year accruals. $\Delta SALES_t$ is the change in sales and $NEG\_\Delta SALES_t$ is the percentage change in sales, where $\Delta SALES$ is less than 0, otherwise zero.

2.3.3. Control Variables

In line with previous research (McVay, 2006; Fan et al., 2010), the study includes lagged core earnings (CE_{t-1}) because of the unrelenting nature of core earnings. An asset turnover ratio (ATO_t) is added to the model because Nassim and Penman (2001) report that there exists a negative relationship between profit margin and ATO_t. In addition, McVay (2006) indicates that inclusion of ATO_t in model (1) is crucial, because changes to the operating strategies are associated with firms that have large income-decreasing special items; for example, firms can change their profit and sales mix to affect the level of core earnings. The study includes $ACCRUALS_{t-1}$, which are the previous year's operating accruals and $ACCRUALS_t$, which are current year accruals in the model. Previous studies (Fan et al., 2010; McVay, 2006) observe that the earnings performance of firms is influenced by accruals and cash flow earnings components. These studies note that accrual manipulation could result in high or low accruals figures, which can affect a firm's performance. Therefore, this study includes accruals to ensure a good prediction of core earnings. Previous research (McVay, 2006; Baker, Collins and Reitenga, 2009) also indicates that an increase in costs is associated with changes in activity level. The study therefore includes the change in sales ($\Delta SALES_t$) and the percentage change in sales ($NEG_{\Delta SALES_t}$), if $\Delta SALES_t$ is less than 0, otherwise zero. In addition, it includes firm-level control variables and control for return on assets (ROA) as previous studies indicate that firm performance influences earnings management (Zalata and Roberts, 2015; Cohen et al., 2008; McVay,

2006). The poorer the performance of the firm, the keener will be the tendency to engage in misclassification of special items to increase reported core earnings. Thus, a negative coefficient on ROA is anticipated. Firm size (SIZE) is also included to control for the existing variations in accrual behaviour between large and small firms. Previous studies (Ashbaugh et al., 2003) indicate that small firms are more likely to engage in earnings manipulations than large ones. Therefore, depending on the size of the firms in the sample, the study expects a negative or positive association between unexpected core earnings and SIZE. To secure external financing, it has previously been indicated that management might manipulate reported earnings upwards. Therefore, the study controls for leverage (LEV), estimated as the ratio of long-term debt to total assets, as previous studies indicate that managing earnings upwards allows firms to meet debts covenants (Zhang, 2008; Badertscher, 2011). In addition, Daniel et al. (2008) report that firms with leverage have the tendency to manage earnings because of debts covenants, therefore a positive relationship between LEV and unexpected core earnings is expected.

Finally, in line with earlier studies (McGuire et al., 2012; Hillary et al., 2009), the study controls for population, income level, education level, age, proportion of minorities and political affiliations in the counties and states to avoid the results being driven by geographic or demographic differences.

2.3.4. Classification Shifting Using Special Items Expenses and Revenue

This study follows McVay's (2006) model to test whether firms shift core expenses into special items, or special revenue into normal revenue, in order to increase their core earnings. Initially, it examines the classification of core expenses into special items or special revenue from core expenses within the income statement as an earnings

management tool (McVay, 2006; Fan et al., 2010). Core expenses are relatively steady, while special items are infrequent or unusual in nature (Fan et al., 2010; McVay, 2006; Doyle et al., 2003). When firms engage in classification shifting, unexpected core earnings increase.

$$UNEXP\_CE_t = \beta_0 + \beta_1 SPITEM_t + \beta_2 REVT + \varepsilon_{t,} \quad (2)$$

where $UNEXP\_CE_t$, is the unexpected core earnings, calculated as the difference between reported and normal or expected core earnings from equation (1). The variable of interest $SPITEM_t$ is income-decreasing special items scaled by sales and REVT is total revenue scaled by total assets. When firms shift core expenses to income-decreasing special items, they increase both core earnings and income-decreasing special items. Similarly, when firms classify special revenues as normal revenues they will increase both core earnings and total revenues (Fan et al., 2010; McVay, 2006). Therefore, it is expected that the coefficients β_1 and β_2 in equation 2 will be positive. Furthermore, the study interacts religiosity (REL) with special items (*SPITEM*) and total revenue (REVT) to generate new variables in model (3).

$$UNEXP_{CE_t} = \beta_0 + \beta_1 SPITEM + \beta_2 REL \times SPITEM_t + \beta_3 REVT_{t-1} + \beta_4 REL \times \text{REVT} + \beta_5 CONTROL\ VARIABLES + \varepsilon_t \quad (3)$$

Current accruals are excluded from equation (1). Recent studies (Fan et al., 2010; Barua and Cready, 2008) attribute McVay's (2006) estimation of expected core earnings to model bias because of the inclusion of contemporaneous accruals in the formation of expected core earnings values. These studies argue that the inclusion of current accruals results in

the creation of a mechanical bias, leading to a positive association between unexpected core earnings (a dependent variable) and special items (an independent variable). This therefore suggests that the misclassification of core earnings into special items reported by McVay (2006) is not classification shifting, but is symbolic of model bias. Thus, the Fan et al. (2010) model without contemporaneous accruals is shown below:

$$CE_t = \beta_0 + \beta_1 CE_{t-1} + \beta_2 ATO_t + \beta_3 ACCRUALS_{t-1} + \beta_5 \Delta SALES_t + \beta_6 NEG\_\Delta SALES_t + \varepsilon_t \quad (4)$$

In the further supplemental analyses, the validity and results of both the McVay (2006) and Fan et al. (2010) models are estimated to assess the impact of religiosity on classification shifting and to interact religiosity with corporate governance variables, BIG4 auditors and audit tenure.

2.3.5. Model Testing the Relationship between Religiosity and Classification Shifting

The study uses equation (3) and includes the interactions between REL and SPITEM, REL and REVT, as well as the firm-level control variables as shown in equations (5), (6) and (7). The generic regression model takes the following form:

UNEXP_CE = β_0 + β_1 SPITEM + β_2REL + β_3 REL×SPITEM + β_4 SIZE + β_5 LEV + β_6 CASFO + β_7 ROA + β_8 BMV + β_9 BIG4 + β_{10} ANALYST_FOL + Demographic Control Variables + Year Fixed Effects + Industry Fixed Effects *(5)*

UNEXP_CE = β_0 + β_1 REVT + β_2REL + β_3 REL×REVT + β_4 SIZE + β_5 LEV + β_6 CASFO + β_7 ROA + β_8 BMV + β_9 BIG4 + β_{10}ANALYST_FOL + Demographic Control Variables + Year Fixed Effects + Industry Fixed Effects *(6)*

$$UNEXP\_CE = \beta_0 + + \beta_1 SPITEM + \beta_2 REL + \beta_3 REL \times SPITEM + \beta 4 REVT + \beta 4 REL + \beta 5 REL \times REVT + \beta 6 SIZE + \beta 7 LEV + \beta 8 CASFO + \beta 9 ROA + \beta 10 BMV + \beta 11 BIG4 + \beta_{12} ANALYST\_FOL + Demographic\ Control\ Variables + Year\ Fixed\ Effects + Industry\ Fixed\ Effects \quad (7)$$

To test hypotheses 1a and 1b, the study examines the coefficient of the religiosity of firms' environment (REL), and the interaction between REL and SPITEM (REL×SPITEM) in equation (5). It also examines the coefficient of the interaction between REL and REVT (REL×REVT) in equation (6) and the combined effect is shown in equation (7). It is expected that religiosity will mitigate managers' incentive to misclassify core expenses or special revenue to increase reported core earnings because of the ethical and moral issues involved in religious social norms. Therefore, we anticipate a negative coefficient on REL, RELSPITEM and RELREVT.

Hypothesis 2 is tested to assess the impact of REL, RELSPITEM and RELREVT on UNEXP_CE, when firms have corporate governance mechanisms in place. Initially, the study controls for corporate governance variables and tests the interaction between REL and corporate governance variables. In particular, board size (BODSIZE), number of independent directors (BODIND) and audit committees size (AUCOM) are used as proxies for corporate governance, in line with previous studies (Zalata and Anderson, 2015; Haw et al., 2011). The interactions between REL and governance variables give the following three new variables: *REL×BODSIZE*, *REL×BODIND* and *REL×AUCOM*. Note that board and audit committee characteristics are tested separately to avoid multicollinearity problems. The study predicts a significant and negative relationship between

misclassification and *REL×BODSIZE, REL×BODIND* and *REL×AUCOM*. The following regression model is used:

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 REL \times SPITEM + \beta 4 REVT + \beta 5\ REL \times REVT + \beta_6 BODSIZE + \beta_7 BODIND + \beta_8 AUCOM + \beta_9\ REL \times BODSIZE + \beta_{10} REL \times BODIND + \beta_{11}\ REL \times AUCOM + \beta_{12}\ SIZE + \beta_{13} LEV + \beta_{14} CASFO + \beta_{15} ROA + \beta_{16} BMV + Demographic\ Control\ Variables + Year\ Fixed\ Effects + Industry\ Fixed\ Effects \quad (8)$$

2.3.6. Fixed Effects Model and Preliminary Mis-Specification Tests

The fixed effects (FE) model is used to run a series of regression results. To arrive at this decision, the study initially tests the panel data regression assumption to facilitate the choice between pooled ordinary least squares (OLS) and the FE or random effects (RE) regression models. The Breusch and Pagan (1980) Langrange Multiple (LM) test is conducted to choose between pooled OLS and the FE or RE model. Given that there were significance differences (panel effects) across the firms, the pooled OLS was inappropriate and therefore rejected. This therefore suggests that the alternative FE or RE models will be appropriate. In line with McKnight and Weir (2009), the Hausman specification test was conducted to select the appropriate model from the FE and RE estimation models for the purpose of testing the hypotheses. The choice between the FE and RE regression models was made after performing the Hausman specification test. With regards to UNEXP_CE, the Hausman test gave Chi2 ($X^{2)}$ of 276.15 (p-value = 0.0000), indicating that the p-value is less than 5%, therefore, the fixed effects regression model is suitable and appropriate for running the regression models. In addition, the study conducts preliminary, mis-specification tests for normality using Kolmogorov-Smirnov test of normality, tests the

presence of heteroscedasticity, using Breusch-Pagan tests for heteroscedasticity and finally checks for serial correlation or auto-correlation by conducting a Wooldridge test for auto-correlation in panel data. The results of these preliminary tests are reported in the regression tables throughout the study. In summary, the results of the preliminary tests indicate that the data meet the requirements of normality, there is an absence of heteroscedasticity and auto-correlation or serial effects.

Table 2.3: List of Variables and Definitions

Variables	Proxy	Definition
Religiosity	*REL*	Strength of religiosity for each U.S. county measured by Association of Statisticians of American Religious Bodies (ASARB) surveys. The results of these surveys are published on the website of the Association of Religion Data Archive (ARDA). The average of each county's religiosity score is weighted by its population.
Normal Core Earnings	NOR_CE	This is the core earnings that are expected to occur in the normal course of business activity, devoid of classification shifting. The study follows McVay's (2006) expectation model in equation 1.
Reported Core Earnings	REP_CE	Estimated as sales – cost of goods sold – selling, general and administration expenses. Depreciation and amortization are excluded from cost of sales, selling, general and administrative expenses.
Unexpected Core Earnings	UNEXP_CE	This the difference between reported core earnings and normal or expected core earnings (McVay, 2006).
Special Items	SPTIEM	Income-Decreasing Special Items as a percentage of sales, calculated as [Special Items (#17)]/Sales (#12) when Special Items are income-decreasing, and 0 otherwise (McVay, 2006).
Total Revenue	REVT	Total revenue scaled by total assets.
Asset Turnover	ATO	Sales scaled by average net operating assets, where net operating assets are the difference between operating assets and operating liabilities. Operating assets = total assets – cash and cash equivalent. Operating Liabilities =

		total assets – total debt - book value of common equity – preferred equity – minority interests.
Percentage Change in Sales	ΔSales	$(Sales_t – Sales_{t-1})/ Sales_t$
Percentage Change in Sales	NEG_ΔSales	where ΔSALES is less than 0, otherwise zero.
Cash flow from operations	CASFO	Is the cash flow from operational activities scaled by? lagged total assets.
Total Assets	TA	Measured as total non-current assets plus total current assets.
Size of the Firm	SIZE	The natural log of total assets.
Return on Assets	ROA	Measured as net income before extraordinary items divided by average total assets.
Leverage	LEV	Financial leverage, measured as total debts scaled by total equity.
Market to Book Value	MBV	Measured as total assets divided by market capitalization.
Reported Loss	LOSS	An indicator variable that equals 1 if income before extraordinary items was negative in the current or previous two fiscal years, and 0 otherwise.
Audit Committee Presence	AUCOM	A dummy variable coded as 1 if the company has an audit committee, otherwise zero.
Independent Board	BODIND	Calculated as the number of independent directors divided by the total number of directors on the board. Defined as non-executive directors holding less than 5% of the voting securities and having no direct or indirect interest or relationship that could reasonably influence their objective judgment and decision making.
Board Size	BODSIZE	Total number of directors on the board.
Religiosity interacts with Board Size	RELBODSIZE	Religiosity multiplied by board size.
Religiosity interacts with Board Independence	RELBODIND	Religiosity multiplied by board independence.
Religiosity interacts with Audit Committee	RELAUCOM	Religiosity multiplied by audit committee.
BIG4 Auditors	BIG4	This is an indicator variable that equals 1 if a company's auditing firm is one of the BIG4 auditors, otherwise zero (0).

Audit Tenure	TEN	The natural log of the number years the auditor has been with the company.
Analysts Following	ANA_FOL	Natural log of the number of analysts following the firm.
Total Accruals	TAC	Difference between earnings before extraordinary items and discontinued operations and the cash flow from operational activities scaled by lagged total assets.
Operating Accrual	ACCRUALS	Operating Accrual = (net income before extraordinary items – cash flow from operation)/sales.
Working Capital Accruals	WC_ACCRUALS	Measured as earnings before extraordinary items plus depreciation and amortisation minus cash flow from operational activities.

2.4. Data, Sample Selection and Descriptive Statistics

Financial data was collected from the annual Compustat database between 2000 and 2015; additional data was also obtained from other sources, including annual reports, audit analytics, CRSP and I/B/E/S. Firms with missing data and those with fewer than 15 firm-year observations to test the hypotheses and estimate expected core earnings are excluded, in line with previous research (Haw et al., 2011; Fan et al., 2010; McVay, 2006). In addition, to avoid bias and the creation of outliers resulting from the inclusion of insignificant firms in the sample, the study excludes any observation with sales revenue of less than $1,000,000 (Haw et al., 2011; Fan et al., 2010; McVay, 2006), as sales is used as a deflator for the majority of the variables, thus reducing the full sample to 23,164 firm-year observations. Utility firms and financial services companies have different reporting environments and regulations, therefore their observations are deleted, in line with previous studies (Zalata and Roberts, 2015; Fan et al., 2010; McVay, 2006). Industries are classified using the Fama and French (1997) industry classification code and the results are not influenced by the number of observations or the code. The final sample is used to estimate the normal or expected core earnings.

Table 2.4: Descriptive Statistics for the Full Sample

Variables	Mean	Median	Standard Deviation	25%	75%
SALES (in M)	1627.363	202.597	3441.067	30.883	1159.031
UNEXP_CE	0.002	0.003	0.069	-0.003	0.004
SPITEM	0.002	0.001	0.012	0.001	0.008
REVT	0.021	0.011	0.061	0.001	0.029
RELxSPITEM	-0.004	-0.003	0.002	-0.001	0.003
RELxREVT	0.005	0.003	0.159	0.000	0.109
BODSIZE	11.428	11.303	4.196	9.597	13.245
BODIND	0.670	0.720	0.078	0.650	0.770
AUCOM	5.458	5.256	2.284	4.125	5.502
REL×BODSIZE	6.905	6.960	1.862	6.226	7.558
REL×BODIND	0.081	0.108	0.033	0.055	0.32
REL×AUCOM	3.567	3.744	1.097	3.726	3.834
ATO	2.143	1.782	1.531	0.950	2.981
CHANGE_ATO	0.029	0.004	0.376	-0.135	0.141
ACCRUALS	-0.019	0.028	0.201	-0.035	0.077
$ACCRUALS_{t-1}$	-0.026	0.029	0.254	-0.030	0.078
ΔSALES	0.096	0.058	0.300	-0.055	0.191
NEG_ΔSALES	0.075	0.043	0.359	-0.048	0.176
SIZE	5.680	5.190	1.760	3.390	6.860
LEV	0.151	0.101	0.162	0.001	0.252
CASFO	0.072	0.089	0.156	0.045	0.141
ROA	-0.311	0.042	0.141	-0.032	0.084
ANALYST_FOL	2.91	3.00	1.40	2.00	4.00
BIG4	0.69	1.00	0.31	1.00	1.00
MBV	2.012	1.754	1.212	1.024	2.912

Notes: UNEXP_CE is computed as the difference between reported core earnings (REP_CE) and expected core earnings (NOR_CE) for each firm (McVay, 2006). REP_CE is the reported core earnings estimated as sales – cost of goods sold – selling, general and administration expenses. Depreciation and Amortization are excluded from Cost of Sales, Selling, General and Administrative Expenses. BODSIZE = total number of directors on the board; BODIND is calculated as the number of independent directors divided by the total number of directors on the board; AUCOM = audit committee; REL×BODSIZE = religiosity multiplied by board size; REL×BODIND = religiosity multiplied by board independence; REL×AUCOM = religiosity multiplied by audit committee. REVT is total revenue scaled by total assets. REL×REVT =religiosity multiplied by total revenue scaled by total assets. ATO is sales scaled by average net operating assets, where net operating assets is the difference between operating assets and operating liabilities. Operating assets = total assets – cash and cash equivalent. Operating Liabilities = total assets – total debt - book value of common equity – preferred equity – minority interests. ACCRUALS is calculated as (net income before extraordinary items – cash flow from operation)/sales. ΔSales is (Salest – Salest-1)/ Salest and NEG_ΔSales is when ΔSALES is less than 0, otherwise zero. SIZE is the natural log of total assets, LEV is the financial leverage measured as the total debts scaled by total equity, CASFO is the cash flow from operational activities, scaled lagged total assets ROA is measured as net income before extraordinary items divided by average total assets and MBV is measured as total assets divided by market capitalization. All other variables are defined above and in Appendix A.

Table 2.4 presents descriptive statistics for the regression variables for all firms. The mean, median, standard deviation, first quartile and third quartile are reported. The dependent variable UNEXP_CE has a mean of 0.002 (approximately zero); the median of UNEXP_CE is 0.001 with a standard deviation 0.069; and the mean SPITEM is positive (0.002), indicating income-decreasing special items. In addition, the mean and median of income-increasing special items are positive, at 0.021 and 0.011 respectively. In addition, the mean (median) REL×SPITEM and REL×REVT, indicating the interaction between religiosity (REL) and income-decreasing special items (SPITEM), and religiosity and special revenue, are approximately zero. The other distributions are similar and consistent with previous research (McVay, 2006; Fan et al., 2010). For example, the mean and median board size is approximately 11 and ranges between 10 and 11, which is also consistent with earlier studies (Zalata and Roberts, 2015; Haw et al., 2011; Lipton and Lorsch, 1992). Mean board independence shows a slight rise to approximately 67%, consistent with previous studies in the U.S. (Abbot et al., (2003) reported 61%; Frankel, McVay and Soliman (2011) reported 66 %.). Similarly, audit committee size is in line with earlier studies in the U.S. (Faleye, 2011; Mangena and Pike, 2005). All other univariate statistics and distributions for all variables appear similar to those of McVay (2006) and Fan et al., (2010), which are winsorized at the first and 99th percentile. Table 2.5 provides Pearson and Spearman's correlation matrix among religiosity, unexpected core earnings and firm-level control variables. Religiosity is negatively correlated with unexpected core earnings. Both the firm level and demographic control variables are correlated with UNEXP_CE in a manner broadly consistent with previous research (McGuire et al., 2012; Dyreng et al., 2012).

The study also conducts further tests to ensure that there are no multi-collinearity problems among the independent variables. Appendix A, Table A1 provides the variance inflation factor (VIF) and the associated tolerance levels (TOL) for each of the independent variables. As indicated, the F-value is more than 1 and the P-value is less than 0.05, therefore, the result is statistically significant, this indicates that all the independent variables are good predictors of the dependent variable (UNEXP_CE). Again, the VIF values are all less than 10, as recommended by prior studies (Greene, 2012; Kennedy, 2008). The VIF indicates the extent to which any of the independent variables influences the estimated coefficients of the other independent variables included in the model. In other words, the VIF checks whether it is appropriate to include all the independent variables in the same model that is used to estimate the dependent variable. It quantifies the severity of multi-collinearity in the estimation of the regression coefficients. When the VIF exceeds 10 or more, the results of the regression analysis are often doubted. In this study, all the VIF in Appendix A, Table A1 are less than 10, suggesting that the coefficients are not inflated by other independent variables in the model.

Table 2.5: Pearson's (above) and Spearman's (below) correlation matrices

	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	REP_CE		**0.20**	0.08	0.01	-0.12	0.04	0.06	**-0.14**	**-0.03**	**-0.05**	**0.08**	**-0.05**	-0.02	**-0.05**	-0.09	-0.05	-0.11	-0.05	**0.01**	-0.10
2	UNEXP_CE	**0.20**		**0.09**	**-0.04**	**-0.02**	**-0.06**	**-0.01**	**-0.14**	**-0.20**	-0.07	**0.04**	**0.04**	**-0.03**	**-0.02**	**-0.02**	**-0.03**	**-0.03**	0.02	0.02	**0.04**
3	SPITEM	0.08	**0.09**		-0.01	-0.13	-0.04	-0.09	**-0.21**	**-0.07**	**-0.02**	**0.03**	**-0.06**	0.01	**-0.02**	**-0.11**	**-0.08**	0.17	-0.07	-0.01	-0.12
4	ATO	0.01	**-0.04**	-0.02		0.02	-0.01	0.00	**0.02**	**0.00**	**0.03**	**0.07**	**-0.01**	0.07	**0.01**	**-0.01**	**0.00**	0.00	0.00	0.00	0.00
5	ACCRUALS	-0.12	**-0.02**	-0.15	0.07		-0.01	-0.01	**0.25**	**0.27**	**0.10**	**-0.23**	**0.01**	0.18	**0.08**	**-0.28**	**0.19**	-0.28	**0.08**	-0.07	0.11
6	ΔSALES	0.04	**-0.06**	-0.06	-0.02	-0.07		0.17	**-0.06**	**0.10**	**-0.02**	**-0.08**	**0.17**	0.02	**-0.07**	**0.08**	**0.04**	-0.01	**-0.01**	-0.06	-0.04
7	NEG_ΔSALES	0.06	**-0.05**	-0.06	0.06	0.00	0.15		**-0.01**	**0.22**	**0.00**	**0.02**	**0.16**	-0.04	**0.05**	**-0.05**	**0.05**	-0.03	**-0.01**	-0.04	-0.01
8	SIZE	**-0.14**	**-0.11**	**-0.23**	**0.08**	**0.24**	**-0.02**	**0.02**		**0.29**	**0.12**	**0.09**	**-0.04**	**0.19**	**-0.14**	**-0.18**	**-0.19**	**-0.40**	**0.27**	**0.10**	**0.39**
9	ROA	**-0.03**	**-0.21**	**-0.05**	**0.04**	**0.25**	**0.13**	**0.22**	**0.26**		**-0.02**	**-0.12**	**0.14**	**0.01**	**0.04**	**-0.17**	**0.13**	**-0.16**	**0.02**	**-0.01**	**0.11**
10	MBV	**-0.05**	-0.10	**-0.01**	**0.02**	**0.11**	**-0.01**	**0.05**	**0.13**	**-0.02**		**0.15**	**-0.02**	0.23	**-0.06**	**0.01**	**-0.02**	0.02	0.01	0.02	**0.07**
11	LEV	**0.08**	**0.04**	**0.06**	**0.07**	**-0.16**	**-0.05**	**0.01**	**0.10**	**-0.11**	**0.13**		**-0.07**	**0.27**	**-0.08**	**0.00**	**-0.02**	**0.06**	**-0.03**	**0.02**	**0.11**
12	BIG 4	**-0.05**	**0.06**	**-0.06**	**-0.02**	**0.07**	**0.14**	**0.19**	**-0.02**	**0.13**	**-0.01**	**-0.05**		**-0.02**	**0.07**	**-0.07**	**0.06**	**-0.03**	**-0.01**	**-0.06**	**-0.03**
13	ANAL_FOL	-0.02	**-0.02**	0.03	0.03	0.23	0.01	-0.03	0.24	**0.01**	**0.23**	**0.26**	**-0.01**		0.00	**0.02**	**-0.03**	0.08	-0.05	0.00	**0.04**
14	REL	**-0.05**	**-0.02**	**-0.06**	**0.01**	**0.05**	**-0.09**	**0.07**	**-0.16**	**0.08**	**-0.08**	**-0.08**	**0.09**	0.00		**-0.30**	**0.20**	**-0.17**	**-0.01**	**-0.29**	**-0.28**
15	AGE	-0.05	**-0.06**	**-0.09**	**-0.02**	**-0.31**	**0.10**	**-0.08**	-0.19	**-0.13**	**0.03**	**-0.01**	**-0.10**	0.01	**-0.27**		**-0.24**	0.35	-0.15	0.35	-0.05
16	EDUC	0.04	**0.07**	**-0.05**	**0.01**	**0.24**	**0.02**	**0.10**	0.11	**0.13**	**-0.02**	**-0.03**	**0.05**	-0.02	**0.23**	**-0.27**		-0.23	0.20	0.26	0.24
17	POPN	-0.12	**-0.10**	**0.22**	**0.01**	**-0.26**	**-0.05**	**-0.05**	-0.42	**-0.08**	**0.02**	**0.06**	**-0.05**	0.07	**-0.16**	**0.36**	**-0.25**		-0.26	0.18	-0.23
18	MIN	**0.02**	0.03	**-0.05**	**-0.02**	**0.09**	**-0.02**	**-0.03**	**0.30**	**0.06**	**0.01**	**-0.02**	**-0.02**	**-0.05**	**-0.07**	**-0.10**	**0.15**	**-0.26**		**0.35**	**0.21**
19	POL	**0.01**	0.02	**-0.04**	**0.00**	**-0.10**	**-0.09**	**-0.06**	**0.12**	**0.04**	**0.02**	**0.03**	**-0.08**	**0.01**	**-0.28**	**0.31**	**0.26**	**0.20**	**0.35**		**0.12**
20	INCOME	-0.10	**-0.04**	-0.12	0.02	0.09	-0.04	-0.02	0.42	**0.05**	**0.06**	**0.11**	**-0.04**	0.03	**-0.26**	**-0.01**	**0.21**	-0.25	0.21	0.12	

All variables are defined in Table 2.3. Bold co-efficients are significant at $p < 0.10$ (in a two tailed test).

2.5. Empirical Regression Results and Discussions

To assess whether religiosity is related to classification shifting, the study initially investigates whether U.S. firms are currently engaged in classification shifting, as reported by McVay (2006) and corroborated by Fan et al. (2010). In Table 2.6, initially only SPITEM is included in Model (2) to provide basic regression results. The coefficient on SPITEM is positive and significant (*SPITEM*; p-value = 0.002), suggesting that some firms in the U.S. inflate core earnings by misclassifying core expenses into special items. When only REVT is included in Model (2), the coefficient on REVT is also positive and significant (REVT; p-value = 0.001), suggesting that firms in the U.S. are involved in upward classification shifting. Finally, both SPITEM and REVT are included in Model 2 and observe a significant positive relationship between unexpected core earnings and both SPITEM and REVT. The result indicates that when revenue is shifted upward or core expenses are shifted downwards on the income statement, unexpected core earnings increase (UNEXP_CE), suggesting that firms do not only report true and fair performance, but are involved in misclassification of special items to increase reported core earnings. This is consistent with previous findings that unexpected core earnings increase with special items. Firms with huge write-offs and restructuring charges tend to perform poorly, but the converse is equally true for firms with special items (McVay, 2006; Fan et al., 2010).

Table 2.6: Regression of Unexpected Core Earnings on Special Expenses and Special Revenue

Dependent Variable = UNEXP_CE						
Variables	SPITEM		REVT		SPITEM & REVT	
	Coefficient	t-values	Coefficient	t-values	Coefficient	t-values
Intercept	0.002	0.33	-0.010	-2.47**	-0.08	-2.30***
SPITEM	0.31	3.11***			0.46	4.20***
REVT			0.13	3.65***	0.14	3.57***
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23,164	23,164	23,164	23,164	23,164	23,164
Adjusted R^2	0.09	0.09	0.08	0.08	0.10	0.10
Breusch-Pagan		1807.15		1723.13		1152.24
P-Value		(0.3259)		(0.3514)		(0.3654)
Kolmogorov-Smirnov		468		383		327
P-Value		(0.4209)		(0.3618)		(0.3415)
Wooldridge Test		123.28		118.25		134.79
P-Value		(0.3617)		(0.2879)		(0.3861)

Notes: We use *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales; REVT is total revenue scaled by total assets. The parameters are estimated based on the following model; all variables are defined in Table 2.3.

$UNEXP\_CE = \beta_0 + \beta 1\ SPITEM + \beta_2\ REVT$ + Demographic Control Variables + Year Fixed Effects + Industry Fixed Effects.

Following Hypothesis 1, the study examines the association between religiosity (REL) and unexpected core earnings (UNEXP_CE), as well as the interaction between REL and SPITEM as the variable of interest (REL×SPITEM). Regressions are run using fixed effects to account for heterogeneity across firms, with the results shown in Table 2.7, Model (5). The results indicate that religiosity is negatively related to UNEXP_CE, (REL; p-value = 0.004). Similarly, the study finds a significantly negative relationship between REL×SPITEM and UNEXP_CE (REL×SPITEM, p-value = 0.001). In Table 2.7, Model (6), REL is interacted with REVT and reports the regression results of UNEXP_CE on REL x REVT. The results show a significant negative relationship between UNEXP_CE and

REL x REVT (p-value = 0.000). Thereafter, all the variables of interest are included in Model (7) and the regression is re-run. The results are consistent with previous findings, as shown in Table 2.7. That is, religiosity mitigates managers' incentive to misclassify revenue items upwards to increase reported core earnings. Therefore, the results suggest that religious managers possibly deem it unacceptable, unethical and morally wrong to engage in classification shifting to boost core earnings to signal managers' inside information to investors, raising the expectation of the market or beating/meeting earnings benchmarks. Perhaps, as indicated by previous studies (McVay, 2006; Fan et al., 2010), this might be due to the limited scrutiny of auditors and other external monitors, often associated with classification shifting. The result is also consistent with the study of McGuire et al. (2012), which observe that accruals earnings management is negatively related to the religiosity of the firms' environment. This is a notable contribution to the literature, as this study is the first to attempt an association between classification shifting and the religiosity of the firms' environment.

Table 2.7: Regression of Unexpected Core Earnings on Special Items Expenses and Special Revenue

Dependent Variable = UNEXP_CE						
Variables	Model (5)		Model (6)		Model (7)	
	Coefficient	t-values	Coefficient	t-values	Coefficient	t-values
Intercept	-0.07	-1.61	0.06	1.74*	-0.04	-1.30
SPITEM	0.28	3.78***			0.16	3.41***
REVT			0.16	4.35***	0.12	3.97***
REL	-0.34	-3.74***	-0.30	-3.38**	-0.28	-2.76**
REL×SPITEM	-0.23	-2.92***			-0.19	-2.56**
REL×REVT			-0.09	-7.88***	-0.08	-4.51**
SIZE	-0.03	-1.45	-0.05	-1.17	-0.06	-1.19
LEV	0.07	2.26**	0.09	2.53**	0.10	2.68**
CASFO	0.09	1.10	0.02	1.07	0.05	1.15
ROA	-0.06	-3.37***	-0.16	-2.37**	-0.18	-2.39**
MBV	-0.03	-2.07**	-0.04	-1.77*	-0.06	-1.78*
BIG4	-0.04	-1.62	-0.03	-1.22	-0.04	-1.28
ANA_FOL	-0.04	-1.56	-0.02	-1.36	-0.04	-1.42

Demographic Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23,164	23,164	23,164	23,164	23,164	23,164
Adjusted R^2	0.16	0.16	0.18	0.18	0.24	0.24
Breusch-Pagan		5018.29		5002.62		6084.35
P-Value		(0.7141)		(0.7087)		(0.7354)
Kolmogorov-Smirnov		539		568		683
P-Value		(0.6148)		(0.6202)		(0.6415)
Wooldridge Test		89.65		106.24		118.27
P-Value		(0.3383)		(0.3456)		(0.3762)

Notes: We use *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, REVT is total revenue scaled by total assets, *REL* = religiosity of the firms' environment, and *REL*×*SPITEM* = interaction between religiosity and income-decreasing special items. *REL*×*REVT* = interaction between religiosity and total revenue scaled by total assets. SIZE is the natural log of total assets, LEV is the financial leverage measured as the total debts scaled by total equity, and CASFO is the cash flow from operational activities scaled by lagged total assets. ROA is measured as net income before extraordinary items divided by average total assets and MBV is measured as total assets divided by market capitalization. BIG4 is an indicator variable that equals 1 if a firm is audited by the BIG4, otherwise zero, and ANLYST_FOL represents the natural log of the number of financial analysts following the firm. The parameters are estimated based on the following model; all variables are defined in Table 2.3.

$$UNEXP\_CE = \beta_0 + + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST\_FOL + Demographic\ Control\ Variables + Year\ Fixed\ Effects + Industry\ Fixed\ Effects$$

In addition, the study finds that the firm-level control variables are associated with UNEXP_CE, in line previous studies (Zalata and Roberts, 2015; Haw et al., 2011). For example, the coefficient of ROA is negative and significantly, at 1%, related to UNEXP_CE, suggesting that firms engage in misclassification when they are performing poorly. Market to book value (MBV) is negative and significantly related to UNEXP_CE, suggesting that firms are less likely to engage in classification shifting when the book value is high. Similarly, SIZE is negative but insignificantly associated with UNEXP_CE, indicating that the sample includes larger firms than smaller firms. Ashbaugh et al. (2003) observe that small firms are more likely to manipulate reported profits than large firms, so the impact of classification shifting decreases with the greater size of the firm. A positive

and significant relationship at the 5% level is observed between leverage (LEV) and UNEXP_CE. DeFond and Jiambalvo (1994) indicate that managers manipulate reported earnings upwards to meet debt covenants or contracts. The BIG4 and number of analysts following exhibit their expected sign and significant/insignificant levels, in line with previous studies (McVay, 2006; Fan et al., 2010; McGuire et al., 2012).

2.5.1. Testing Misclassification in High and Low Religiosity Areas

The above results and analyses have provided clear evidence that the religiosity of a firm's environment influences classification shifting negatively and significantly. However, the analyses do not reveal the extent to which the level (high or low) of religiosity in an area affects this shifting. The study tests this by empirically breaking down the datasets into two samples, in line with previous research (McGuire et al., 2012), comprising high and low religious areas and defining areas with above (or below) the median religiosity figure of 52% in the sample as having high (or low) religiosity respectively. It is anticipated that a highly religious environment will influence classification shifting more significantly than areas with low religiosity figures[4].

[4] We break our sample into high and low religiosity areas because prior studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012) indicate that a highly religious environment has a significant influence on the attitudes and behaviour of the people living there.

Table 2.8: Classification Shifting in High and Low Religiosity Areas

	High		Low	
Variables	Coefficient	t-values	Coefficient	t-values
Intercept	-0.08	-0.060	-0.03	-0.077
SPITEM	0.08	3.16***	0.04	2.45**
REVT	0.18	3.85***	0.09	2.20**
REL	-0.36	-3.09***	-0.07	-1.46
REL×SPITEM	-0.26	-3.28***	-0.06	-1.09
REL×REVT	-0.14	-3.09***	-0.08	-1.39
SIZE	-0.08	-2.45**	-0.05	-2.04**
LEV	0.08	1.61	0.08	1.32
CASFO	0.15	2.91**	0.11	0.62
ROA	-0.05	-2.18**	-0.12	-1.78*
MBV	-0.06	-1.69*	-0.05	-1.19
BIG4	-0.04	-1.54	-0.03	-0.89
ANA_FOL	-0.03	-1.21	-0.02	-1.02
Demographic Control Variables	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Adjusted R^2	0.27	0.27	0.22	0.22
Observations	14,124	14,124	8,566	8,566
Breusch-Pagan		5314.47		4486.15
P-Value		(0.7372)		(0.6254)
Kolmogorov-Smirnov		456		379
P-Value		(0.6245)		(0.4687)
Wooldridge Test		121.32		109.69
P-Value		(0.3986)		(0.3516)

Notes: We use *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. The parameters are estimated based on the following model; all variables are defined in Table 2.3.

$$UNEXP\_CE = \beta_0 + + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST\_FOL + Demographic\ Control\ Variables + Year\ Fixed\ Effects + Industry\ Fixed\ Effects$$

Table 2.8 presents the results of the analysis of high and low religious areas on managers' classification shifting. Interestingly, the study finds that there is a strong negative association at the 1% significance level (P< 0.01) between REL x SPITEM and

UNEXP_CE in high religiosity areas. Similarly, there is a negative relationship at the 1% significance level (P<0.03) between REL x REVT and UNEXP_CE at the high religiosity areas. On the contrary, it is found that the association between REL×SPITEM, REL×REVT and UNEXP_CE in low religiosity areas is negative, but not significant. This reinforces the findings that religious social norms influence classification shifting, and that the effect is acute, especially in highly religious social norm environments, consistent with previous studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012).

2.5.2. Religiosity, Corporate Governance and Classification Shifting

Previous studies (Zalata and Roberts, 2015; Haw et al., 2011) indicate that corporate governance mechanisms affect earnings management practices. Hypothesis 2a is tested to assess the interactive effect between religiosity and governance variables on unexpected core earnings to ensure that previous findings are robust in the presence of internal corporate governance. The study uses BODSIZE, BODIND and AUCOM as proxies for internal corporate governance, in line with previous research (Zalata and Roberts, 2015). Thereafter, the study focuses on the interaction between REL×BODSIZE, REL×BODIND and REL×AUCOM to assess their impact on UNEXP_CE. Separate regressions are run for each variable to avoid multicollinearity problems. First, the study includes BODSIZE in the model, followed by BODINS and AUCOM. The same process is repeated for REL x BODSIZE, REL x BODIND and REL x AUCOM respectively; subsequently all the variables are included in the model and the results appear very similar and consistent.

Table 2.9: Impact of Religiosity and Corporate Governance on Classification Shifting

Dependent Variable = UNEXP_CE		
	Coefficient	t-value
Intercept	-0.08	-1.37
SPITEM	0.06	2.94***
REVT	0.19	3.50***
REL	-0.12	-3.64***
RELxSPITEM	-0.15	-3.12***
RELxREVT	-0.13	-3.82***
BODSIZE	-0.03	-2.22**
BODIND	-0.04	-1.74*
AUCOM	-0.02	-0.74
REL×BODSIZE	-0.24	-3.92***
REL×BODIND	-0.39	-3.67***
REL×AUCOM	-0.17	-2.87***
SIZE	-0.02	-1.17
LEV	0.11	1.70
CASFO	0.03	0.86
ROA	-0.07	-1.19
MBV	-0.03	-1.76*
Demographic Control Variables	Yes	Yes
Year Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
Adjusted R^2	0.52	0.52
Observations	23164	23164
Breusch-Pagan		4287.54
P-Value		(0.6514)
Kolmogorov-Smirnov		146.86
P-Value		(0.3415)
Wooldridge Test		81.67
P-Value		(0.2963)

Notes: We use *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns.. The parameters are estimated based on the following model. All variables are defined in Table 2.3.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 RELSPITEM + \beta 4\ REVT + \beta 5\ REVT \times REL + \beta_6 BODSIZE + \beta_7 BODIND + \beta_8 AUCOM + \beta_9 RELxBODSIZE + \beta_{10} RELxBODIND + \beta_{11} RELxAUCOM + \beta_{12}\ SIZE + \beta_{13} LEV + \beta_{14} CASFO + \beta_{15} ROA + \beta_{16} BMV + Demographic\ Control\ Variables + Year\ Fixed\ Effects + Industry\ Fixed\ Effects$$

As indicated in Table 2.9, the study finds a significant negative relationship (at the 1% level, p-value = 0.001) between REL×SPITEM and UNEXP_CE. In addition, the coefficient on REL x REVT and UNEXP_CE is negative and significant (-0.13; -3.82). Consistent with previous research (Zalata and Roberts, 2015; Haw et al., 2011; Sun and Cahan, 2009), the results show that there is a negative association at the 5% significance level between UNEXP_CE and BODSIZE, and between UNEXP_CE and BODIND at the 10% significance level. First, this result suggests that large board size constrains classification shifting and this may be due to the size or the presence of financial experts on the board. This is consistent with the findings of (Peasnell et al. (2005) and Xie et al. (2003) who observe that the optimal board size influences managerial decision and financial reporting quality. Again, the result suggests that misclassification is less common in firms with large number of independent directors, which confirms the arguments that independent directors on the board are able or more likely to confront or monitor aggressive misreporting of financial information. That is, they are not prone to less monitoring, caused by free-rider problems or less information from insider-directors (Zalata and Robert, 2015). Thus, corporate governance mechanisms within the firms in the sample mitigate misclassification of core expenses or special revenue items. On the contrary, the relationship between UNEXP_CE and AUCOM is negative but not significant, suggesting that large audit committees are not better at mitigating expense misclassification, perhaps, due to the limited auditor vigilant and the fact that classification shifting does not violate FASB accounting rules. With regards to the interactive variables, the study also finds significant (at the 1% level) negative association between REL×BODSIZE, REL×BODIND, REL×AUCOM and UNEXP_CE. This suggests that in a religious social norms environment, there is a decrease in management misclassification activity. This

negative impact of religion on managerial opportunistic behaviour is influenced by corporate governance mechanism such as; BODSIZE, BODIND and AUCOM. As board size increases coupled with a high proportion of independent directors, the ability to engage in managerial opportunistic behaviour to influence reported core earnings via classification shifting, reduces. However, the impact becomes relatively more pronounced in a religious environment. The change in significant level (from 10% to 1% or 5% to 1%) after the interaction demonstrates the impact of religious social norms on classification shifting. This is consistent with the earlier findings that managers have less motivation to misclassify core expenses or revenue items in an environment where religious social norms influence managerial behaviour and decisions (McGuire et al 2012). Therefore, the initial results are supported; that religiosity complements existing monitoring mechanisms put in place by management to hinder misclassification.

2.5.3. Religiosity, Auditor Characteristics and Classification Shifting

Hypothesis 2b is tested to assess the extent to which the interaction between religiosity and auditor characteristics impact classification shifting. Previous studies indicate that auditor characteristics affect accrual-based earnings management but because misclassification does not violate GAAP, auditors pay less attention to this (McGuire et al., 2012; McVay, 2006). In the previous analyses, the study controls for BIG4 and analyst following, but observes an insignificant negative relationship between UNEXP_CE and the BIG4 auditors.

Panel A in Table 2.10 shows the regression results when only income-decreasing special items are included (SPITEM) in Model (5); the results show a positive and significant co-efficient of (0.14, t = 2.03). However, the coefficient on SPITEM x BIG4 is negative but

not significant (-0.04, t = -1.09). The interaction between BIG4 and REL is included in Model (5). The coefficient on REL×BIG4 is negative and significant (-0.13, t = -1.94), similarly the interaction between REL×SPITEM×BIG4 shows a significant and negative coefficient of (-0.25 t = -2.21), indicating that in a religious social norm environment, misclassification behaviour is constrained substantially, and this is induced by BIG4 auditors. That is, even though, BIG4 auditors pay less attention to expense misclassification, in a religious social norms environment, BIG4 complements religiosity and existing monitoring mechanisms to mitigate classification shifting. In Model (6), the study includes only special revenue; the coefficient on REVT is positive and significant (0.06, t = 2.05), but the coefficient on REVT×BIG4 is negative but not significant (-0.03, t = -1.23). Thereafter, the study interacts REL, REVT and BIG4, and the results show that the coefficient on REL×REVT×BIG4 is negative and significant (-0.18, t = -2.14). When both REVT and SPITEM are included in Model (7), the results and inferences remain the same. The coefficient on SPITEM×BIG4 is (-0.05, t = -1.64) and REVT×BIG4 is (-0.04, t = -1.36); still negative, but not significant. The coefficient on REL×SPITEM×BIG4 is (-0.17, t = -1.81) and REL×REVT×BIG4 is (-0.16, t = -1.98), both being negative and significant at 10%. Overall, the study reports some evidence that firms with BIG4 auditors in relation to religious social norms engage less in upward and downward classification shifting. Note though that there is some variability in the significance of such an effect.

Table 2.10: Regression of Unexpected Core Earnings on Special Items Expenses and Special Revenue: Auditor Characteristics & Religiosity

Dependent Variable = UNEXP_CE						
Variables	Model (5) SPITEM		Model (6) REVT		Model (7) SPITEM & REVT	
Panel A: BIG4 Auditors						
	Coefficient	t-values	Coefficient	t-values	Coefficient	t-values
Intercept	-0.05	-0.37	0.07	1.31	0.06	0.80
SPITEM	0.14	2.03**			0.16	2.05**
SPITEM×BIG4	-0.04	-1.09			-0.05	-1.64
REVT			0.06	2.05**	0.09	1.97**
REVT×BIG4			-0.03	-1.23	-0.04	-1.36
REL×SPITEM×BIG4	-0.25	-2.21**			-0.17	-1.81**
REL×REVT×BIG4			-0.18	-2.14**	-0.16	1.98**
REL×BIG4	-0.13	-1.94**	-0.05	-2.32**	-0.07	-2.33**
BIG4	-0.08	-1.24	-0.03	-1.42	-0.09	-0.883
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23,164	23,164	23,164	23,164	23,164	23,164
Adjusted R^2	0.09	0.09	0.08	0.08	0.11	0.11
Breusch-Pagan		5423.36		5173.84		5624.23
P-Value		(0.6879)		(0.6257)		(0.7185)
Kolmogorov-Smirnov		116.94		124.56		114.68
P-Value		(0.4523)		(0.4625)		(0.4236)
Wooldridge Test		128.44		87.29		121.32
P-Value		(0.2937)		(0.1876)		(0.2618)
Panel B: Auditor Tenure						
Intercept	-0.04	-0.39	-0.02	-0.54	-0.03	0.69
SPITEM	0.33	2.94***			-0.30	2.86***
SPITEM×TEN	-0.06	-1.38			-0.08	-1.21
REVT			0.02	3.09***	0.02	3.04***
REVT×TEN			-0.09	-2.40**	-0.08	-2.68**
REL×SPITEM×TEN	-0.05	-2.45**			-0.07	3.15***
REL×REVT×TEN			-0.06	2.31**	-0.08**	-2.39**
RELTEN	-0.04	-2.08**	-0.08	-1.82*	-0.07*	-1.78*
TEN	-0.02	-0.88	-0.04	-1.54	-0.05	-1.55
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23,164	23,164	23,164	23,164	23,164	23,164
Adjusted R^2	0.08	0.08	0.06	0.06	0.09	0.09
Breusch-Pagan		5251.36		5721.31		5815.17
P-Value		(0.6524)		(0.7238)		(0.7309)
Kolmogorov-Smirnov		114.35		112.13		110.26
P-Value		(0.4317)		(0.4253)		(0.4123)
Wooldridge Test		127.84		84.24		121.32

P-Value	(0.2832)	(0.1829)	(0.2583)

Notes: We use *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, and REVT is total revenue scaled by total assets. *REL* = religiosity of the firms' environment, BIG4 is an indicator variable that equals 1 if a firm is audited by a BIG4 auditing firm, otherwise zero. *SPITEM*×BIG4 = interaction between BIG4 auditors and total revenue by total assets. REVT×BIG4 = interaction between BIG4 and total revenue scaled by total assets. REL×SPITEM×BIG4 = interaction among religiosity, BIG4 auditors and income-decreasing special items. REL×*REVT*×BIG4 = interaction among religiosity, BIG4 auditors and total revenue scaled by total assets. REL×BIG4 = interaction between BIG4 and religiosity. TEN is the natural log of the number of years the auditor has been with the company. SPITEM×TEN = interaction between income-decreasing special items and auditor tenure. REVT×TEN = interaction between total revenue scaled by total assets and auditor tenure. REL×TEN = interaction between auditor tenure and religiosity. The parameters are estimated based on the following model; all variables are defined in Table 2.3.

In Table 2.10, Panel B, regression results are shown to indicate whether or not audit tenure, interaction between audit tenure (TEN in Table 2.10 captures the number of years the auditor has been with the company) and religiosity affect classification shifting. Only SPITEM is included in Model (5) and the coefficient is positive and significant (0.33, t = 2.94), while the result for SPITEM×TEN is negative but not significant (-0.06, t = -1.38), suggesting that the number of years an auditor is engaged by the firm as an auditor alone does not play an effective role in mitigating classification shifting behaviour in some U.S. firms. Perhaps, it could suggest that the longer they are engaged as auditors, the more familiar they become with management, this familiarity makes auditors to overlook managerial motivation to engage in misclassification. Again, this might also be due to the fact that misclassification does not violate the FASB accounting regulations or GAAP, hence, there is limited attention and vigilant from the auditors. Thereafter, the study includes the interaction between REL and TEN, as well as REL, SPITEM and TEN, in Model (5). The coefficient on REL×TEN is negative and significant (-0.04, t = -2.08) and the coefficient on REL×SPITEM×TEN is also negative and significant (-0.05, t = -2.45). This suggests that religious social norms of the firm's environment play an effective monitoring role in constraining misclassification activity that is induced by auditor tenure.

However, long auditor tenure alone does not mitigate misclassification. The overall results present evidence to support the effective monitoring role of religion in curbing opportunistic managerial behaviour, which is partially complemented by auditor tenure (McGuire et al., 2012). The study also includes REVT in Model (6); the coefficient is positive and significant (0.02, t = 3.09) and the coefficient on REVT×TEN is negative and significant (-0.09, t = -2.40). The results for RELxTEN and REL×REVT×TEN are (-0.08, t = -1.82) and (-0.06, -2.31) respectively. This also indicates that high religiosity in a firm's environment mitigates special revenue misclassification and this negative impact is induced by the number of years the firm engages the services of the auditor. Both SPITEM and REVT are included in Model (7) and the results and inferences remain the same. The overall results indicate that classification shifting is subdued in a religious social norm environment and that religiosity complements the existing monitoring mechanisms, such as corporate governance and audit practices.

2.5.4. Religiosity and Classification Shifting in Rural and Urban Areas

To test hypothesis 3, the sample is disaggregated into rural and urban areas. Previous studies observe that earnings quality is associated with firms in rural areas (McGuire et al., 2012; Ucran, 2007). This point is further strengthened when firms in rural areas are audited by the BIG4 auditors and have strong internal controls (Bayley and Taylor, 2007; Dechow et al., 2010). To show that religious social norms have an influence on firms located in both urban and rural areas, and that the results are not solely due to the lower and higher earnings quality of the firms located in the two types of area respectively, the study divides the

sample into urban and rural areas. In line with Loughran and Schulz (2005)[5], the study classifies Metropolitan Statistical Areas (MSA) in each county with a population of over five million as urban areas, and repeats the main test using the urban and rural sub-samples.

Table 2.11: Impact of Religion on Classification Shifting in Urban and Rural Areas

	Urban		Rural	
Variables	Coefficient	t-values	Coefficient	t-values
Intercept	-0.06	-0.70	-0.09	-0.47
SPITEM	0.07	2.28**	0.04	2.69**
REVT	0.05	1.84*	0.11	2.20**
REL	-0.05	-1.78*	-0.09	-3.51***
REL×SPITEM	-0.07	-2.09**	-0.11	-3.87***
REL×REVT	-0.04	-1.82*	-0.08	-2.27**
SIZE	-0.08	-2.32**	-0.05	-1.74*
LEV	0.06	1.06	0.00	1.01
CASFO	0.16	2.23**	0.08	2.18**
ROA	-0.06	-1.77*	-0.07	-1.75*
MBV	-0.06	-1.04	-0.05	-1.02
BIG4	-0.03	-1.36	-0.02	-1.49
ANAL_FOL	-0.04	-1.26	-0.03	-1.09
Demographic Control Variables	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Adjusted R^2	0.37	0.37	0.33	0.33
Observations	18,124	18,124	4,253	4,253
Breusch-Pagan		4474.42		4093.67
P-Value		(0.6469)		(0.6283)
Kolmogorov-Smirnov		259.47		214.68
P-Value		(0.3126)		(0.2875)
Wooldridge Test		139.26		132.37
P-Value		(0.3128)		(0.3083)

Notes: We use *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. The parameters are estimated based on the following model; all variables are defined in Table 2.3.

[5] Loughran and Schulz (2005) define urban areas as the most-populated areas, with an average of over five million residents in the MSA within the county. We replicate our analysis based on their definition and find that the inferences remain the same.

$$UNEXP\_CE = \beta_0 + + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST\_FOL + Demographic\ Control\ Variables + Year\ Fixed\ Effects + Industry\ Fixed\ Effects$$

Table 2.11 presents the results of the analysis of the relationship between REL×SPITEM, REL x REVT and UNEXP_CE for firms located in urban and rural areas. Indeed, the conclusions remain the same using both rural and urban sub-samples.

The study finds that both REL×SPITEM and REL× REVT are negative and significantly (at the 1% level, p-value = 0.004) associated with UNEXP_CE in rural areas, suggesting that the negative association between religious social norms and misclassification is not solely influenced by the high earnings quality associated with these areas. Note, however, that the magnitude of the interaction terms REL×SPITEM and REL× REVT, also the REL, is higher in the rural areas than the urban areas, which could be attributed to the heterogeneity in religious beliefs of individuals in big cities compared to rural areas, as reported by Chalfant and Heller (1991) and Urcan (2007). Thus, religious social norms are effective in reducing classification shifting in rural and urban areas, but the effect is stronger in the former. Overall, the findings are robust and clearly demonstrate that the religiosity of the firms' environment mitigates classification shifting.

2.6. Robustness Checks

2.6.1 Validity of McVay's (2006) Model

To develop her expectation model so as to compute unexpected core earnings, McVay (2006) includes current year accruals in line with DeAngelo et al (1994) to control for firms' performance. She observes that firms' extreme performance is significantly associated with accruals level. That is, firm's that have large non-recurring expenses (special items) are likely to report negative performance. However, McVay (2006) reports

a positive relationship between unexpected core earnings and non-recurring expenses, which is a demonstration of the existence of classification shifting. In a related study, Fan et al (2010) provide a different explanation and argue that the inclusion of current year or contemporary accruals in McVay (2006) expectation model is an illustrative of model bias and can create a mechanical positive relationship between unexpected core earnings and non-recurring expenses. Fan et al (2010) report that the dependent variable (unexpected core earnings) is partially determined by the accruals in the McVay (2006) expectation model, and this is regressed on non-recurring expenses or special items (independent variable), a situation that is likely to introduce mechanical bias. Fan et al (2010) conclude that there is no classification shifting of core expenses into non-recurring expenses, rather McVay (2006) finding is an evidence of mechanical bias.

Consequently, McVay (2008) re-visited her studies and argues against Fan et al (2010) by using a sample of firms with positive core earnings to subdue the impact of accruals on earnings performance. Using the full sample, she excluded current accruals from the model and observes that the relationship between non-recurring expenses and unexpected core earnings was negative, an indication that there is no classification shifting. Therefore, McVay (2008) concludes that in the absence of performance control (current accruals) in the expectation model, researchers should use firms that report positive core earnings because such firms are less likely to be affected by performance effect. Following the above debate over the validity of McVay (2006) model, this study addresses Fan et al (2010) concerns regarding total accruals in McVay (2006) expectation model. The normal or expected core earnings are estimated using total accruals and working capital accruals, similar to Fan et al (2010) and Athanasakou et al. (2009) respectively to condition the

normal core earnings on current accruals so as to control for firms' performance. The study, therefore, substitutes total accruals by working capital accruals because working capital accruals exclude depreciations expenses and other non-recurring accruals items which helps to subdue McVay (2006) expectation model bias.

In Table 2.12, the results for both Athanasakou et al.'s (2009) and Fan et al.'s (2010) classification shifting models are estimated. To employ Fan et al.'s (2010) model, the study drops contemporaneous accruals from McVay's expectation model. It is found that SPITEM and REVT are positive and significantly (1%; p-value =0.002) related to UNEXP_CE. The coefficients on both REL×SPITEM and REL× REVT are still negative and significantly ($P < 0.001$) associated with UNEXP_CE. These results are similar to those of McVay (2006), suggesting that the initial findings of misclassification of core expenses and revenue items rooted in McVay's (2006) expectation model are bias free. Furthermore, in line with Athanasakou et al. (2009), the study surrogates total accruals by working capital accruals in both McVay's (2006) and Fan et al.'s (2010) expectation models. Athanasakou et al. (2009) observe that the substitution of working capital accruals is important, because total accruals in McVay's (2006) model comprise depreciation expenses and special items accruals, which are likely to introduce bias. Therefore, the regression results are re-estimated using working capital accruals, but the results as indicated by Athanasakou et al.'s (2009) model and inferences remain similar to the initial results. That is, core earnings increase when a substantial amount of core expenses are classified as special items, which is consistent with classification shifting.

Table 2.12: Religiosity and Different Models of Classification Shifting.

	Athanasakou et al.'s (2009) Model		Fan et al.'s (2010) Model	
Variables	Coefficient	t-values	Coefficient	t-values
Intercept	-0.08	-0.65	-0.05	-0.73
SPITEM	0.07	3.27***	0.08	2.96***
REVT	0.16	3.78***	0.12	2.24**
REL	-0.12	-2.93***	-0.17	-3.65***
REL×SPITEM	-0.15	-3.09***	-0.13	-3.07***
REL×REVT	-0.09	-3.83***	-0.11	-2.48**
SIZE	-0.03	-2.14**	-0.04	-2.48**
LEV	0.19	1.41	0.03	1.56
CASFO	0.19	1.49	0.13	1.48
ROA	-0.08	-1.71*	-0.09	-1.67*
MBV	-0.07	-2.04**	-0.04	-2.28**
BIG4	-0.04	-1.22	-0.05	-1.09
ANA_FOL	-0.03	-1.37	-0.04	-1.27
Demographic Control Variables	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Adjusted R^2	0.53	0.53	0.46	0.46
Observations	23164	23164	23164	23164
Breusch-Pagan		5287.54		5197.29
P-Value		(0.7418)		(0.7239)
Kolmogorov-Smirnov		454		372
P-Value		(0.6241)		(0.4682)
Wooldridge Test		120.28		107.63
P-Value		(0.3782)		(0.3511)

Notes: We use *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. The parameters are estimated based on the following model; all variables are defined in Table 2.3.

$$UNEXP\_CE = \beta_0 + + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST\_FOL + Demographic\ Control\ Variables + Year\ Fixed\ Effects + Industry\ Fixed\ Effects$$

2.6.2. Testing Misclassification in Pre- and Post- Sarbanes-Oxley Act 2000 and Financial Crisis Periods

To ensure that the results of the study are not influenced by the confounding effects of various events that took place during the study period, the extent to which religiosity affected the misclassification of special items in the pre- and post- SOX or financial crisis and stock market crash periods is examined. To achieve this, the study divides the data into the period prior to the implementation of the Sarbanes-Oxley Act (SOX, 2000-2002), the period prior to the financial crises and stock market crash (2003-2009), and the post financial crises period (2010-2015). Previous studies (Lambert, Leuz and Verrecchia, 2007; Engel, Hayes and Wang, 2006; Jain and Rezaee 2006; Bushee and Leuz, 2005) indicate that the SOX enactment brought about an improvement in the reliability of financial information, a reduction in financial statement fraud, the strengthening of corporate governance mechanisms, and an improvement in the liquidity of firms. Cohen et al. (2008) observe that the level of real activities earnings management increased after the passage of SOX. Conversely, they found that accrual-based earnings management was high prior to the passage of SOX, suggesting that firms engaged in more real activities than accrual-based earnings management after the passage of SOX. Therefore, this study examines the effect of religious social norms on misclassification before and after the passage of SOX in 2002.

Table 2.13: Religiosity and Misclassification in Pre and Post Sarbanes Oxley Act (2002) and Financial Crisis Periods

Dependent Variable = UNEXP_CE								
Variables	2000-2002		2003-2006		2007-2009		2010-2015	
	Coefficient	t-values	Coefficient	t-values	Coefficient	t-values	Coefficient	t-values
Intercept	-0.05	-0.72	-0.04	-0.74	-0.06	-0.77	-0.04	-0.64
SPITEM	0.32	4.52***	0.17	2.44**	0.49	6.48***	0.18	2.34**
REVT	0.19	3.98***	0.14	2.37*	0.23	5.29***	0.12	2.18***
REL	-0.26	-3.52***	-0.25	-2.28**	-0.31	-3.83***	-0.27	-3.66***
REL×SPITEM	-0.17	-3.64***	-0.20	-2.42**	-0.25	-3.79***	-0.20	-3.87***
REL×REVT	-0.07	-3.26***	-0.07	-2.56**	-0.14	-3.58***	-0.09	-3.91***
SIZE	-0.03	-1.32	-0.02	-1.03	-0.06	-1.39	-0.02	-1.12
LEV	0.06	2.35**	0.04	2.24**	0.09	3.56***	0.04	2.26**
CASFO	0.04	1.28	0.02	1.12	0.04	1.26	0.03	1.16
ROA	-0.06	-2.36**	-0.03	-2.14**	-0.09	-3.46***	-0.04	-2.18**
MBV	-0.01	-2.42**	-0.02	-2.08**	-0.08	-2.38**	-0.06	-1.78*
BIG4	-0.02	-1.49	-0.02	-1.20	-0.04	-1.53	-0.04	-1.28
ANA_FOL	-0.02	-1.63	-0.02	-1.44	-0.03	-1.49	-0.04	-1.44
Demographic Cont. Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,054	3,054	6,126	6,126	4,703	4,703	9,281	9,281
Adjusted R^2	0.29	0.29	0.31	0.31	0.29	0.29	0.30	0.30
Breusch-Pagan		4732.41		5136.31		5068.72		5786.37
P-Value		(0.6061)		(0.7134)		(0.7035)		(0.7463)
Kolmogorov-Smirnov		122.16		121.58		142.36		163.59
P-Value		(0.4362)		(0.4254)		(0.4526)		(0.4625)
Wooldridge Test		86.29		85.91		88.29		87.29

P-value	(0.2332)	(0.2326)	(0.3012)	(0.2336)

The study uses *, **, *** in a two-tailed test to respectively indicate statistical significance at 10, 5, and 1 percent levels. All variables are defined in Table 2.3. Co-efficients and t-values are shown in separate columns. The parameters are estimated based on the following model:

$$UNEXP\_CE = \beta_0 + + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST\_FOL + Demographic\ Control\ Variables + Year\ Fixed\ Effects + Industry\ Fixed\ Effects$$

The regression results in Table 2.13 show some firms in the U.S are engaged in misclassification of special items to boost reported core earnings in the pre-and post-SOX period as well as the financial crisis period. As can be seen from the results, there was a positive relationship at the 1% significance level between SPITEM, REVT and UNEXP_CE across all levels. Prior to the enactment and implementation of SOX Act in 2002, the results show a positive and significant co-efficient of (0.32, t = 4.52) between SPITEM and UNEXP_CE. Similarly, the results in post-SOX and financial crisis periods show a positive and significant relationship between SPITEM and UNEXP_CE respectively. However, the effect is remarkable and much more pronounced during the financial crisis period (0.49, t = 6.48). This suggests that during the financial crisis period, firms in the U.S. opportunistically engaged in classification shifting (McVay, 2006), perhaps, to avoid reporting losses. Again, it could also suggest that firms in the U.S. misclassify core expenses into special items to improve their reported core earnings in order to boost investor confidence or meet/beat analysts forecast. In addition, the relationship between REVT and UNEXP_CE is also significantly positive in pre-and post-SOX periods as well as financial crisis periods (0.19, t = 3.98; 0.14, t = 2.37 and 0.23, t = 5.29; respectively). This also implies that classification shifting is a prevalent issue among firms in the U.S. to boost reported core earnings and the effect is acute during the financial crisis period. The financial crisis brought hardship upon firms and affected investor confidence globally. That is, some firms in the U.S. are engaged in upward classification shifting of special revenue to boost reported core earnings, especially during the financial crisis period, despite the SOX Act (2002). Perhaps, the increase in the degree of misclassification in the

pre-and-post financial crises can also be partly attributed to the limited auditor scrutiny of classification shifting (Zalata and Roberts, 2015; McVay, 2006) or due to the fact that it does not violate U.S GAAP/FASB accounting rules. It could also mean that firms opportunistically engage in misclassification in the post-SOX or financial crisis periods to boost investors' confidence, increase firm mangers' private benefits, meet or beat analysts forecast (Kothari et al., 2016, Zalata and Robert, 2015) due to poor financial performance or limited auditor vigilance.

In relation to whether religiosity mitigates misclassification in the pre-or post-SOX periods as well as financial crisis period, the results indicate that the interactive terms REL x SPITEM and REL x REVT are negatively related to UNEXPE_CE at the 1% significance level. However, the coefficients and t-values are substantially significant after the enactment of SOX Act (2002) and the financial crisis periods, suggesting that religiosity complements SOX and other monitoring systems to mitigate misclassification of core expenses and special revenue after the enactment of SOX in 2002. It also implies that while the SOX Act (2002) helps to decrease earnings manipulation, the effect is much more pronounced in a religious social norms environment. The results are consistent with the findings of prior studies (McGuire et al., 2012; McVay, 2006) and indicate that classification shifting of special expenses and revenue items occurs in firms in the U.S. but decreases in religious social norm environments significantly.

2.6.3. Geographical Dispersion

The analyses above are based on the assumption that religiosity in the geographic area surrounding a firm's headquarters has an influence on the misclassification of core expenses and special revenue to boost reported core earnings. However, McGuire et al.

(2012) indicate that firms are geographically dispersed, with geographic segments located in areas far away from their corporate headquarters. Some of these segments have autonomous structures which allow them to make decisions on behalf of corporate headquarters. Therefore, it is possible that the religious social norms in the area surrounding the corporate headquarters will have no influence on the segments' financial reporting and classification shifting behaviour. This is possible because the segmental reports and decisions are more likely to be influenced by the religious social norms of the area where the segments are located. Consequently, the study creates two sub samples in line with the geographic segment data from Compustat to assess whether or not the results differ based on the geographic dispersion of the firm.

Following previous research (McGuire et al., 2012), the geographic segment data from the Compustat annual database are utilised. Thereafter, the study finds the mean and median of the segments to be 2.05 and 1.04 respectively. The maximum number of geographic segments is 35. Therefore, firms with two or fewer geographic segments are classified as being centralised, and those firms with more than two geographic segments as geographically dispersed. Table 2.14 shows the regressions results of the geographically centralised and dispersed segment. It is found that the association between religion and unexpected core earnings is significantly negative at 1% in the geographically centralised sample, consistent with earlier findings. For example, the coefficients on both REL x SPITEM and REL x REVT are negative and significant. This indicates that religious social norms in the firm's environment are effective at monitoring misclassification behaviour in firms that are geographically centralised. This is consistent with the social norms theory and confirms that firm managers' decisions and behaviour at corporate level are partly

influenced by the religious social norms in the firms' environment. In contrast, the relationship between religiosity and unexpected core earnings is negative but not significant in the geographically dispersed sample. This result is consistent with initial findings, suggesting that geographic dispersion influences the extent to which religious social norms subdue expense misclassification to increase reported core earnings. Furthermore, the results confirm that religious social norms in the firms' environment have a negative impact on expense misclassification into special items.

Table 2.14: Regressions of Religion on Classification Shifting Using Geographically Centralised and Dispersed Segment Sub-Samples

	Centralised Segments		Dispersed Segments	
Variables	Coefficient	t-values	Coefficient	t-values
Intercept	-0.07	-0.71	-0.04	-0.83
SPITEM	0.06	2.96***	0.04	2.82***
REVT	0.13	3.35***	0.10	2.09**
REL	-0.18	-4.29***	-0.12	-1.53
REL×SPITEM	-0.16	-3.42***	-0.09	-1.48
REL×REVT	-0.12	-3.92***	-0.07	-1.32
SIZE	-0.06	-2.36**	-0.04	-2.43**
LEV	0.19	1.41	0.03	1.56
CASFO	0.19	1.49	0.13	1.48
ROA	-0.07	-1.78*	-0.08	-1.72*
MBV	-0.09	-2.18**	-0.03	-2.32**
BIG4	-0.05	-1.02	-0.05	-1.09
ANA_FOL	-0.04	-1.32	-0.04	-1.27
Demographic Cont. Variables	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Adjusted R^2	0.38	0.38	0.32	0.32
Observations	18623	18623	4541	4541
Breusch-Pagan		5509.31		4787.27
P-Value		(0.7607)		(0.6278)
Kolmogorov-Smirnov		245.68		125.72
P-Value		(0.5836)		(0.2247)

Wooldridge Test	128.36	119.83
P-Value	(0.3859)	(0.2725)

Notes: We use *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. The parameters are estimated based on the following model; all variables are defined in Table 2.3.

$$UNEXP\_CE = \beta_0 + + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST\_FOL + Demographic\ Control\ Variables + Year\ Fixed\ Effects + Industry\ Fixed\ Effects$$

The results in Table 2.14 for geographically centralised and dispersed segments are not perfectly comparable because of the differences in the sample size. To minimise selection bias and noise and to check whether the difference in sample size has effects on the inferences, the study repeats the centralised regressions using 4541 firm year observations in order to be consistent with the sample of geographically dispersed segments. The results in Table 2.15 are quite similar and consistent with the previous results reported in Table 2.14. Again, SPITEM is positive and significantly related to UNEXP_CE. In addition, the coefficients on both REL x SPITEM and REL x REVT are negative and significant at the 99% confidence level. This suggests that the results of the study are not prone or subject to sample selection bias but firms' religious social norms environment are effective in mitigating misclassification behaviour.

Table 2.15: Regressions of Religiosity on Classification Shifting using the Centralised Segment Sub-Sample

Dependent Variable = UNEXP_CE		
	Coefficient	t-value
Intercept	-0.07	-1.32
SPITEM	0.06	2.82***
REVT	0.16	3.19***
REL	-0.11	-3.27***
RELxSPITEM	-0.13	-3.07***
RELxREVT	-0.12	-3.47***
SIZE	-0.02	-1.14
LEV	0.10	1.63
CASFO	0.03	0.84
ROA	-0.06	-1.17
MBV	-0.03	-1.75*
ANA_FOL	-0.02	-1.28
Demographic Cont. Variables	Yes	Yes
Year Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
Adjusted R^2	0.32	0.32
Observations	4541	4541
Breusch-Pagan		4178.83
P-Value		(0.6078)
Kolmogorov-Smirnov		86.63
P-Value		(0.2328)
Wooldridge Test		104.27
P-Value		(0.3167)

Notes: We use *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. The parameters are estimated based on the following model; all variables are defined in Table 2.3.

$$UNEXP\_CE = \beta_0 + + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST\_FOL + Demographic\ Control\ Variables + Year\ Fixed\ Effects + Industry\ Fixed\ Effects$$

Table 2.16: Religiosity and Classification Shifting in Twenty U.S. States

Dependent Variable: UNEXP_CE		
	Coefficient	t-value
Intercept	-0.06	-0.68
SPITEM	0.06	2.98***
REVT	0.10	3.56***
REL	-0.12	-2.94**
REL×SPITEM	-0.13	-4.02***
REL×REVT	-0.11	-2.89**
SIZE	-0.05	-1.84*
LEV	0.05	1.47
CASFO	0.23	2.57**
ROA	-0.09	-1.75*
MBV	-0.07	-1.09
BIG4	-0.03	-1.42
ANAL_FOL	-0.02	-1.33
Demographic Control Variables	Yes	Yes
Year Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
Adjusted R^2	0.49	0.49
Observations	12,325	12,325
Breusch-Pagan		5786.37
P-Value		(0.7463)
Kolmogorov-Smirnov		143.47
P-Value		(0.3349)
Wooldridge Test		82.73
P-value		(0.2654)

Notes: We use *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. The parameters are estimated based on the following model; all variables are defined in Table 2.3.

$UNEXP\_CE = \beta_0 + \beta 1\ SPITEM + \beta_2\ REL + \beta_2\ REL \times SPITEM + \beta_2\ SIZE + \beta_3\ LEV + \beta_4\ CASFO + \beta_5\ ROA + \beta_6\ MBV + \beta_7\ ROA + \beta_8 MBV$ + *Demographic Control Variables + Year Fixed Effects + Industry Fixed Effects*

2.6.4. Alternative Measure of Religiosity

Although the measure of religious social norms is supported by previous studies (McGuire et al., 2012; Callen et al., 2011; Grullon et al., 2010), further robustness tests are conducted to ensure that the results are free from potential bias and do not rely on generalisation of religious datasets across several years. The study uses different sources of religious datasets collected by Gallup surveys for the study period.[6] It runs regressions for only the twenty U.S. States with available Gallup religious datasets. Interestingly, it is found that the results presented in Table 2.16 are consistent with the initial results. The inferences still remain the same when religiosity is measured by a simple aggregate of the responses to the three Gallup questions on religion. Specifically, the coefficients on REL x SPITEM and REL x REVT are negative and significant, (-0.13, t = -4.02) and (-0.11, t = -2.89) respectively, indicating that religiosity mitigates misclassification. Overall, the results suggest that religiosity complements existing monitoring systems put in place by management to mitigate classification-shifting behaviour. The study provides first time evidence to indicate the negative influence of religious social norms in curbing management incentives to shift core expense or revenue items into special items. First time evidence of misclassification in the pre- and post- SOX Act (2002) period, rural and urban areas, and geographically centralised and dispersed segments is documented. In general, the results indicate that in a religious social norm environment, managers have a disincentive to signal information to investors to increase reported core earnings.

[6] Thereafter, we take a sub-sample of our original data based on the twenty most and least religious states in the U.S., as reported by the Gallup surveys in Table 2. We substitute our original religious datasets with the Gallup religious datasets for the twenty U.S. States and merge them into the Compustat financial data file using the state code identifiers.

2.7. Conclusion

The aim of this study is to examine economic or opportunistic motivation to misclassify core expenses or revenue into special items in a religious social norm environment. Previous studies (Behn et al., 2013; Haw et al., 2011; McVay, 2006) observe that classification shifting is deemed as an inexpensive approach to overstate core earnings in order to meet or beat analyst forecasts, and disguise private control benefits to the detriment of shareholders. The study documents evidence to show that classification shifting is prevalent and economically significant among U.S. firms. Consistent with previous studies (Fan et al., 2010; McVay, 2006), it is demonstrated that special items increase with unexpected core earnings; hence, the positive relationship between special items and unexpected core earnings. The study contributes to the financial reporting and earnings management literature and provides evidence that religiosity is negatively associated with upward and downward classification shifting. It indicates that managers have little economic or opportunistic motivation for expense misclassification in a religious environment. Thus, religiosity appears to be more effective to combat classification shifting in highly religious areas. In addition, it is shown that religiosity complements corporate governance mechanisms, for example, board size, board independence, BIG4 auditors and audit tenure, to mitigate classification shifting. The study observes that expense misclassification occured in the pre- and post- SOX Act 2002 periods and the financial crisis period, but the religiosity of the firm appears to complement the SOX regulations to mitigate classification shifting behaviour in post-SOX enactment. Furthermore, it is shown that geographical dispersion has an effect on the extent to which religious social norms restrain managers' misclassification behaviour. The study has several policy and practical implications. First, the findings are consistent with social norm theory, as social norms are

reported to shape the behaviour and attitudes of managers in corporate decision-making. The complementary role of religion and the associated interaction between religiosity, corporate governance and audit practices are highlighted. Therefore, a platform is provided for management to strengthen existing corporate governance and audit practices. This is important, because religion is rarely discussed in secular organisations, but an understanding of the role of religion in shaping corporate financial reporting will help policy decisions to create value for shareholders.

The limitations of this study are two-fold. It did not control for state-level culture due to the inability to access the state-level cultural database in the U.S. It is admitted that there are other proxies for internal corporate governance which are not addressed (for example, institutional ownership and CEO duality) because of lack of data accessibility. However, the study controls for audit characteristics, board size, board independence and audit committee as internal governance variables. In addition, religious adherence and the religious social norms of the firms' environment are used. Future studies should investigate the religious backgrounds of managers and employees. Notwithstanding, the present results are useful for regulators, external monitors and investors, as they indicate that religion strengthens the existing monitoring mechanisms put in place by management to mitigate classification shifting.

Appendix A

Table A1: Variance Inflation Factor (VIF) and Tolerance Levels (TOL)

Dependent Variable = UNEXP_CE				
Variables				
	Coefficient	t-values	TOL	VIF
Intercept	-0.07	-1.61		
SPITEM	0.28	3.78***	0.48	2.1
REVT	0.16	4.35***	0.71	1.4
REL	-0.34	-3.74***	0.56	1.8
REL×SPITEM	-0.23	-2.92***	0.43	2.3
REL×REVT	-0.09	-7.88***	0.63	1.6
SIZE	-0.03	-1.45	0.67	1.5
LEV	0.07	2.26**	0.71	1.4
CASFO	0.09	1.10	0.53	1.9
ROA	-0.06	-3.37***	0.63	1.6
MBV	-0.03	-2.07**	0.83	1.2
BIG4	-0.04	-1.62	0.77	1.3
ANA_FOL	-0.04	-1.56	0.45	2.2
POPN	-0.34	-1.37	0.32	3.1
INCOME	-0.13	-2.25**	0.59	1.7
EDUC	-0.08	-1.79*	0.48	2.1
AGE	0.15	2.36**	0.71	1.4
POLITICAL	0.06	2.47**	0.56	1.8
MINORITY	-0.12	1.48	0.43	2.3
Observations	23,164	23,164		
Adjusted R^2	0.16	0.16		
F-Value	17.59***			

Notes: We use *, ** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. The parameters are estimated based on the following model; all variables are defined in Table 2.3.

Chapter 3 – Impact of Religiosity and Firms' Legal Environment on Accrual-Based and Real Activities-Based Earnings Management – Evidence from the U.S.

3.1. Introduction

The literature on earnings management abounds with studies that document evidence that accrual-based and real activities earnings management are pervasive, but their drivers are yet to receive maximum consensus. Recent studies (Jarvinen and Myllymaki, 2016; Kothari et al., 2016) have examined real activities versus accrual-based approaches in seasons equity offering (SEO) valuation, real activities earnings management in the pre- and post-Sarbanes-Oxley (SOX) Act (2002) period, reporting material weakness. These studies observe that that both accrual-based and real activities earnings management are pervasive during SEO valuations, but that real activities are predominant in the post-SOX period. Similarly, Cheng et al. (2016) studied the relationship between internal governance mechanisms and real activities and found that strong internal governance weakens real activities manipulations. Several studies (Baxamusa and Jalal, 2014; McGuire et al., 2012; Dyreng et al., 2012; Grullon et al., 2010; Dechow et al., 1996) also indicate that the religious social norms of the firms' environment negatively influence accrual-based earnings management but have a positive influence on the real activities-based approach. In addition, previous cross-country studies have investigated the relationship between a country's legal environment and investor protection (Behn et al., 2013; La Porta et al., 1998); its legal environment and accrual-based earnings management (Callen et al., 2011); and earnings management and investor protection (Luez et al., 2003). These studies observe that a strong legal environment boosts investor confidence, but does not mitigate accrual-based earnings management. In a related study, Eleswarapu and Venkataraman (2006) indicate that the level of disclosure is influenced by the legal environment and that

information risk is reduced as laws and regulations curb insider trading and adverse selection. They find that an improved legal environment lowers the cost of equity in stock markets and that the legal environment makes it unlawful for firms to make false statements of a material fact or to omit to state a material fact.

Similarly, Skinner (1997) examines the association between earnings disclosure and litigation costs and observes that litigation costs decrease with more timely adverse earnings disclosure. His/her study finds that voluntary disclosures increase during quarters that result in litigation, which is due to the desire by managers to pre-disclose adverse news in an attempt to reduce the cost of litigation associated with bad news in the quarter. Skinner (1994) and Kasznik and Lev (1995) also observe that managers are more likely to predisclose adverse news to reduce litigation costs. In a related study, Francis, Philbrick and Schipper (1994a) document evidence to show that many lawsuits occur during quarterly periods when earnings predisclosures are made, signifying that the costs of litigation cannot be avoided by managers.

At both national and global levels, the U.S. legal environment is deemed to be robust, of high quality and fair, but cumbersome and characterised by several law suits. Generally, recent surveys in the U.S. indicate that some U.S. states are associated with more business-friendly legal environments, whilst others have worse legal environments for doing business or making business decisions. During the past decade, several surveys have been conducted to ascertain the effects of the U.S. litigation environment on business decisions. For example, a survey by McKinsey and Company, a global firm with more than 10,000

consultants and 2,000 research and information professionals, found that total U.S. commercial tort costs between 1950 and 2006 grew from $13 billion to $259.6 billion per year, which in GDP terms is an increase of 1.87 percent per year. This growth in commercial tort costs was found to be twice those in Germany and three times those of the United Kingdom and France. In a related study by McKinsey and Company (2011), "*Survey respondents said that a fair and predictable legal environment was the second most important criterion determining a financial centre's competitiveness. In this regard, they felt the U.S. was at a competitive disadvantage to the United Kingdom (UK). They attribute this U.S. disadvantage to a propensity toward litigation and concerns that the US legal environment is less fair and less predictable than the UK."* Recently, Harris Interactive conducted a survey for the Institute for Legal Reform (ILR) at the U.S. Chamber of Commerce between 2002 and 2015 and found that the "litigation environment in a U.S. state is likely to affect important business decisions; such as where to do business, locate business or what to report to stakeholders."

The aim of this study is to empirically explore the extent to which the interaction between the U.S. litigation environment and religiosity of the firms' environment impacts on accruals-based and real activities earnings management practices. The literature provides evidence that religion and culture shape firms' decisions. For example, Baxamusa and Jalal (2014) find that the leverage levels of firms in the U.S. are affected by religion; other studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012; Grullon et al., 2010) find that the religiosity of the firms' environment influences accrual-based or real activities-based earnings management practices. Similarly, culture is also noted to affect firms' decisions at national and cross-country levels. For example, Gray, Kang and Yoo (2013)

and Callen et al. (2011) find that national culture influences the cost of equity and earnings management, whilst Aggarwal and Goodell (2014) state that culture influences capital structure. Therefore, Sunder (2005), observes that full assessment of financial reporting requires an appreciable understanding of the religious social norms in a firm's environment, and Levitt (1998) suggests that the erosion of social norms underpins financial statement manipulation. Indeed, previous studies have established a positive relationship between religiosity and business ethics (Terpstra, Rozell and Robinson, 1993; Barnett, Jermier and Lafferty, 1996; Weaver and Agle, 2002; Conroy and Emerson, 2004; Longenecker, McKinney and Moore, 2004). Moreover, Terpstra et al. (1993) and Barnett et al. (1996) indicate that highly religious individuals are found to exhibit traditional views and higher morals than individuals with weaker religious backgrounds. In related studies, Conroy and Emerson (2004) and Kennedy and Lawton (1998) find that individuals' behaviour, ethical values and attitudes are shaped by the degree of religious social norms in the environment. Thus managers' behaviour is shaped by the religious social norms of the population in the neighbourhood that surrounds them. Other studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012) have examined religion in relation to earnings management and other aspects of financial reporting with mixed results; but little is known about the impact of the litigation environment and religiosity on accrual-based and real activities earnings management. Clearly, the effect of the litigation environment, and its interaction with the religiosity of the firms' environment, on earnings management remains unexplored, whilst findings from studies on the relationship between the legal environment/religiosity and accrual-based or real activities-based approaches need to be explored further (McGuire et al., 2012; Hilary and Hui, 2009). This study explores and fills this gap in the literature on

accrual and real activities earnings management, and the associated interaction between the litigation environment and the religiosity of the firms' environment in the U.S.

Indeed, the influence of religious social norms on different aspects of economic choices and outcomes has been considered in previous literature (Shu et al., 2012; Taylor and Bloomfield, 2011; Davidson and Stevens, 2013; Kumar et al., 2010; Guiso et al., 2009; Hillary and Hui, 2009; Fischer and Huddart, 2008). The evidence in the accounting literature regarding the effect of religion and the legal environment on accrual-based and real activities earnings management is scarce. Clearly, this study is different from previous ones as it investigates the extent to which the religious social norms of the firm environment interact with firms' legal/litigation environment in order to assess their impact on earnings management. Thus, this study is the first to provide empirical results about the impact of the interactive term between religiosity and the legal environment on the two types of earnings management. As in Chapter 2, but on a broader scale, the study utilises all U.S. county-level religious datasets from *The Association of Religious Data Archives (ARDA)* database between 2000 and 2010 to determine the strength of religious social norms, and all U.S. firms in the Compustat database for a minimum period of 10 years to extend the research to the area of accrual-based and real activities earnings management. Overall, the study identifies 698 distinct counties that are the headquarters of at least one of the firms on the Compustat annual database used in the analysis. The detailed process of collecting religiosity datasets was discussed in Chapter 2; therefore; in Chapter 3, the study does not enter into full discussion of the process again.

Furthermore, the study collected datasets from the Lawsuit Climate Survey conducted for the U.S. Chamber Institute for Legal Reform by the Harris Poll between 2002 and 2015 to

measure the legal environment. Respondents were asked to score key elements, including having and enforcing meaningful venue requirements; overall treatment of tort and contract litigation; treatment of class action suits and mass consolidation suits; damages; timeliness of summary judgement or dismissal; discovery, scientific and technical evidence; judges' impartiality and competence; and juries' fairness and effect on business practices and financial reporting. To compute state level litigation index scores, each element was graded and the overall ranking of State Liability Systems was developed by creating an index using the grades provided for each of the key elements, plus overall performance grade. To create the index, the key elements plus the overall performance grade were rescaled from zero (0) to one hundred (100), where A = 100, B = 75, C = 50, D = 25 and F = 0. The state-level litigation index scores were matched to their respective U.S. states by merging them by year using the state code identifiers from Compustat's company location code where firms are headquartered in order to derive the state-level litigation dataset. The study uses a litigation dataset covering all U.S. states.

Financial data was collected from all firms on the Compustat database between 2002 and 2015 which were identified as having required datasets. In line with previous research, data from specialised industries such as banks and insurances companies, as well as other financial services, were excluded from the datasets (Donelson et al., 2016; McGuire et al., 2012; Zang, 2012). The study excludes financial services companies, as previous studies (eg. Francis and Yu, 2009; Maijoor and Vanstraelen, 2006) indicate that their accrual generating processes differ significantly and require specific accounting rules and requirements; for example, minimum capital requirements and specific regulations governing financial services companies.

From the results of the analyses, the study finds that religiosity is negative and significantly associated with accrual-based earnings management, in line with previous research (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012) but positive and significantly related to the proxies for real activities earnings management. The study also interacts religiosity with the legal environment and observes that the latter weakens the positive impact of religiosity on real activities, but complements religiosity in mitigating accrual-based earnings management. Therefore, in a legal environment the positive effect of religiosity on real activities reported by previous studies (McGuire et al., 2012; Dyreng et al., 2012) can no longer be demonstrated. Thus, religiosity and the legal environment serve as forms of monitoring mechanisms to mitigate accrual-based earnings management, but the positive effect of religiosity on real activities is not sustainable when the legal environment interacts with religiosity. This is a notable contribution to the literature on earnings management.

Several robustness tests are conducted to examine the association between religiosity and legal environment, their interactions and the proxies for accrual-based and real activities earnings management to support the initial regression results. Initially, the data is divided into high and low religiosity areas. The study defines high religiosity areas as those above the median religiosity figure, and low areas as those below it. Concurrent with previous studies (McGuire et al., 2012; Dyreng et al., 2012), highly religious environments influence earnings management more significantly than low religiosity areas. As expected, the study finds that highly religious areas based on the subsample record more significant negative/positive associations between religiosity and accrual-based/real activities earnings management methods than low religiosity areas. The inferences remain the same when

religiosity is interacted with legal environment. The data is also divided into urban and rural areas to assess the impact of the high or low earnings quality often respectively associated with rural or urban areas (McGuire et al. 2012; Urcan, 2007). Previous studies (McGuire et al. 2012; Loughran and Schulz, 2005) classify Metropolitan Statistical Areas (MSA) in each county with populations of over five million as urban areas. This study repeats the main test using only the urban subsample, comprising MSA areas within the county with an average population of over five million residents, and the findings remain the same; religiosity and legal environment are negative and significantly related to accrual-based earnings management even in urban areas, despite the varying differences in religious beliefs among individuals in the big cities relative to rural areas. However, the impact was much more pronounced in rural areas than urban ones.

Furthermore, previous research (Cheng et al., 2016; Zalata and Roberts, 2015; Lin and Hwang, 2010; Harris and Raviv, 2008) observes that good corporate governance mechanisms in firms mitigates accrual-based and real activities earnings management practices. In additional analysis, this study includes three variables (board size, number of independent directors and audit committees) as proxies for corporate governance. It also interacts religiosity with proxies for corporate governance and re-runs the regression models. Notably, it is observed that the interactive term between governance variables and religious social norms is negative and significantly associated (at the 1% level) with accrual-based earnings management, suggesting that religiosity serves as a form of monitoring and complements corporate governance to decrease real activities. In further robustness tests, the study repeats the regression for real activities earnings management, using individual measures instead of aggregated ones. Cohen and Zarowin (2010) note that

aggregating the individual variables to compute proxies' for real activities-based earnings management has the potential to influence earnings and dilute the results. In particular, this study uses abnormal production costs, abnormal discretionary expenses and abnormal cash flows as dependent variables and proxies for real activities-based earnings management. It is found that the coefficient on religiosity is positive and significant. However, the coefficient on the interactive term between religiosity and legal environment is negative, and insignificantly related to all three individual measures. In addition, different definitions from the literature are used for accruals, in line with prior research (Behn et al., 2013; Dechow et al, 2012; Haw, Ho and Li, 2011; Xie et al., 2003). Working capital accruals are substituted for accruals in the modified Jones model for each firm year observation and two-digit SIC code and industry. The study finds that religiosity is negative and significantly associated with abnormal accruals, even when working capital accruals are used in the modified Jones model. In additional analysis, both the Jones model and modified Jones model are augmented to include lagged return on assets. Dechow et al. (2012) and Kothari et al (2005) indicate that inclusion of lagged return on assets mitigates model misspecification. In both the Jones model and modified Jones model with lagged return on assets, the study finds that the relationship between abnormal accruals, legal environment and religiosity is significantly negative.

Finally, the study makes important contributions. First, in agreement with previous studies (McGuire et al et. 2012; Callen et al. 2011, Dyreng et al., 2012), it is found that religiosity impacts negatively on accrual-based and positively on real activities earnings management. This study confirms and substantiates earlier studies that show the relationship between religiosity and accrual-based and real activities earnings management. Second, it is shown

that the legal environment plays a complementary role in mitigating accrual-based management, or weakening the positive impact of religiosity on real activities management, especially when religiosity and legal environment interact. The study also observes that corporate governance mechanisms decrease accrual-based earnings management and that the effect is more pronounced when governance variables interact with religiosity. Therefore, it is noted that religiosity can serve as a form of internal monitoring to mitigate accrual-based earnings manipulation. In addition, it is observed that religiosity, legal environment and internal governance interactions decrease the positive impact of religiosity on real activities. This may be due to the fear of law suits, legal action or loss of reputation. Third, concurrent with previous studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012; Grullon et al., 2010), this study provides additional evidence that even with different measures and models, religiosity is negatively or positively associated with accruals-based or real-activities earnings management. In addition, it is shown that religiosity decreases earnings management in firms in rural areas more than in urban areas, and that real activities earnings management increase in a religious social norm environment. However, the positive effect of religiosity on real activities is subdued by firms' legal/litigation environment.

The chapter proceeds as follows. Section 3.2 presents the literature and develops the hypotheses; section 3.3 explains the research design and discusses the empirical methodology; and section 3.4 describes the data, sample selection and descriptive statistics. Section 3.5 discusses the empirical results, while Section 3.6 presents several robustness checks and section 3.7 provides the conclusion.

3.2. Literature Review and Hypothesis Development

This section provides a discussion of the literature and hypotheses on litigation environment, real activities and accrual-based earnings management methods.

3.2.1. Litigation Environment

Previous cross-country research (Chung and Wynn, 2008; Leuz et al., 2003; La Porta, 1998; Skinner, 1994) suggests that strong investor rights and legal enforcement boost investment and the quality of financial reporting. At the country-level, Chung and Wynn (2008) and Baginski, Hassell and Kimbrough (2002) indicate that U.S. laws create a litigious environment which impacts negatively on management earnings forecast. These studies indicate that the fear of litigation influences management earnings forecast decisions and associated security prices. In addition, Core et al. (1997) find that firms purchase directors' and officers' insurance cover when they have more litigation risks. Similarly, other research (Chung and Wynn, 2008; Leuz et al., 2003; La Porta et al., 1998; Skinner, 1994) indicates that litigation fears facilitate management disclosure of information in order to defend managers against shareholders blaming them for concealing vital information, or to reduce the number of investors qualifying for class action suits. Previous studies (Chung and Wynn, 2008; Kasznik and Lev, 1995; Skinner, 1994) find evidence of bad news announcements being obstructed by management using quantitative measures. In comparing U.S. and Canadian litigation environments, Baginski et al. (2002) and Skinner (1994) find that U.S. firms in less litigious environments tend to issue less frequent, less precision and shorter-term forecasts, but that Canadian firms reduce issuing of forecasts when earnings decrease, and vice-versa. In a related study, Field, Lowry and Shu (2005) examine the relationship between disclosures and litigation and find no evidence that

disclosure triggers litigation; observing that it in fact deters certain types of litigation. To restrain fraudulent practices and protect investors, La Porta et al. (1998) observe that there should be a well-functioning judiciary system, serving as an indication of strong legal enforcement. Using different proxies to measure "law and order", such as the aggregate of the efficiency of the judicial system, contract repudiation by government, corruption, rule of law, and risk of expropriation, to assess the extent to which countries' legal enforcement affects investor protection, La Porta et al. (1998) find stronger investor protection in common law countries than in civil law countries. Thus, law enforcement and investor protection are strong in common law countries. Similarly, Leuz et al. (2003) investigate the relationship between accrual-based earnings management and investor protection. They observe that there is a negative relationship between strong investor protection, evidenced by a well-functioning legal system, and accrual-based earnings management, but that a positive association exists when there is weak investor protection and a legal system. Following these findings, Callen et al. (2011) argue that Leuz et al. (2003) did not control for culture and religion; therefore, their findings might be influenced by the national cultural and religious backgrounds. As a result, they examine the relationship between accrual-based earnings management and countries' legal environment by controlling for culture and religion. They find that there is no relationship when culture and religion are considered as control variables. King et al. (1990) indicate that managers fear possible litigation if earnings forecasts are eventually inaccurate. Other studies (Skinner, 1994, 1997; Francis et al., 1994) argue that disclosure of bad news is positively related to the threat of litigation, and that managers' incentive to provide forward-looking information is negatively related to this threat. However, Field et al. (2005) observe that disclosure potentially mitigates certain types of litigation and that there is no evidence that disclosure

triggers litigation. Interestingly, no study has examined the impact of the U.S. litigation environment on accrual-based and real activities earnings management practices. This study extends the research in the area of earnings management to assess how the litigation environment of U.S. states affects managers' choice of earnings management practices. In particular, it seeks to establish the impact of firms' litigation environment on both real-activities and accrual-based approaches. The above discussions lead to the following hypotheses:

H1a: The legal environment of a firm is related to accrual-based earnings management.

H1b: The legal environment of a firm is related to real-activities earnings management.

3.2.2. Real-Activities Earnings Management and Religiosity

On the other hand, real activities earnings management occurs when managers undertake actions that deviate from initial best practice to increase reported earnings (Vorst, 2016; Zang, 2012; Gunny, 2005). Schipper (1989) defines earnings management as "*a purposeful intervention in the external financial reporting process, with the intention of obtaining some private gain…[a] minor extension of this definition would encompass "real" earnings management, accomplished by timing investment or financing to alter reported earnings or some subset of them?*." The figure below illustrates various tools and methods used by firms to engage in real activities earnings management to influence firms' reported earnings are summarised in Figure 1 as follows.

Figure 1: Tools of Real Activities Earnings Management

Tools	Conservative
Cutting Advertising Expenses	Firms intentionally reduce expenditure on advertising. The result is an increase in the reported earnings and increase cash flow from operations.
Share Repurchases	Firms use share repurchase to improve earnings per share (EPS) as the number of outstanding shares reduces through the repurchase. Firms use share repurchases to manage reported earnings and EPS to avoid reporting poor performance, to avoid decrease in earnings, to meet or exceed sell-side analysts' earnings performance.
Disposal of Profitable Assets	Firms engage in asset disposal at a time when they can use the gains from sale of the assets to influence reported earnings. Firms increase earnings through the gains arising from the sale of marketable securities and non-current assets.
Reducing Selling Prices	Firms increase sales revenue and consequently reported earnings through price reduction or by offering price discounts as well as flexible or more lenient credit terms. Even though, this is a short-term measure.
Over production	Firms engage in overproduction to increase inventory and reduce cost of goods sold (COGS) in order to avoid reporting losses or to increase reported earnings.

Adapted from: Roychowdhury (2006)

The ensuing paragraphs provide a discussion of the various tools and methods used by managers' to engage in a range of real activities to influence reported net income.

3.2.2.1 Cutting Advertising Expenses

Cohen et al. (2010) indicate that the evidence on real activities management mostly focusses on firm managers opportunistically cutting down expenditure on adverting expenses and R&D expenditures to reduce reported expenses. Consistent with the matching concept, these discretionary expenses are treated in the same period that they are incurred. Therefore, firms can influence the reported earnings by intentionally cutting down on discretionary advertising expenses. Roychowdhury (2006) observes that this is most likely to occur when expenditure on advertising expenses or R&D expenditures do not generate incomes or revenues immediately. When firm managers want to meet earnings target, they

will cut down discretionary expenditures which include advertising expenses. In general, a sharp decline in discretionary expenditures leads to abnormally low discretionary expenses in proportion to sales (Roychowdhury, 2006). In addition, Graham et al. (2005) observe that advertising expenses are used by management to influence earnings target because of its impact on sales. A cut in advertising expenses increases cash flow and profit but the long term effect is likely to be negative. However, if firm managers want to meet earnings forecast and benchmarks, they tend to focus on short-term goals and cutting down adverting expenses is a key real activities management that they consider to embark on.

3.2.2.2 Share Repurchases

Share repurchases involve firms buying back shares from their shareholders. Vermaelen (2005) provide five ways in which firms repurchase shares. These include; open-market repurchase which involves managers buying back shares directly from sellers in the capital market. Second, firms repurchase shares through private acquisition and this method is used when the parties do not want the stock market to react. The third method is repurchase by tender or public bidding. Vermaelen (2005) indicates that "public fixed price tender offers include firms that offer to repurchase its shares from shareholders at a fixed price". Vafeas et al. (2003) report that firms manage their earnings downwards with the incentive that shareholders will sell their respective shares at lower prices. Again, firms can repurchase their shares using "a Dutch-action" (extended tender offer), where shareholders set the price within a range and the firms buy at a lowest prices ranges. The last way of share repurchase is with synthetic repurchases or derivatives. This involves put options, forward contracts, call options etc. Previous studies (Burgstahler and Eames, 2002; Brown and Caylor, 2004) observe that firms use share repurchases to manage reported earnings and earnings per

share (EPS) to avoid reporting poor performance, to avoid decrease in earnings, to meet or exceed sell-side analysts' earnings performance. Therefore, Hribar et al. (2006) investigate the conditions where firms use a share repurchase to meet or beat analysts' (EPS) and indicate that share repurchases are common among corporate managers. They find a positive relationship between disproportionately large number of accretive stock repurchases and EPS management. That is, firms would have missed analysts' forecasts if not the stock repurchase, suggesting that some firms are engaged in stock repurchases to compensate for a shortfall in earnings or some firms will avoid stock repurchase when earnings are likely to fall. Managers have incentive to influence quarterly EPS to beat analysts' forecasts through share repurchases because of the desire to build their reputation and credibility. Lin et al (2009) observe that firm managers use share repurchase as a substitute device for discretionary accruals in earnings management behaviour. They conclude that the magnitude of earnings management is positively related to share repurchases, especially stock options.

3.2.2.3 Disposal of Profitable Assets

The literature indicates that firms engage in asset disposal at a time when they can use the gains from sale of the assets to influence reported earnings. Bartov (1993) find that managers sell assets and use the gains to boost the reported earnings whenever there is a possibility of debt covenants violations and decline in earnings' growth. Similarly, Hermann et al. (2003) investigate the extent to which firm managers in Japan utilise profit from the sale of assets to influence reported earnings. They observe that when firms operating income falls below analysts benchmark or management's forecast of earnings, they increase the firm's earnings through the sale of marketable securities and non-current

assets. The choice of the depreciation methods, rate and the timing of the sale of assets are at the discretion and choice of firm managers. Gunny (2010) indicates that firms report gains or losses on the sale of assets on the income statement, and they achieve this by timing the disposal of assets to occur in the period when they can use the gains to manage the reported income.

3.2.2.4 Reducing Selling Prices

This involves firm managers attempt to increase sales revenue during the year by reducing selling price or offering price discounts as well as flexible or more lenient credit terms (Roychowdhury, 2006). To accelerate sales or generate additional sales in the current year from the next fiscal year, managers reduce selling prices and offer limited price discounts. The increase in sales volumes as a consequence of price reductions and discounts appear temporary but disappear shortly when the old prices are re-established. Cash flows per sale from the additional sales are likely to be low as margins falls. However, Jackson and Wilcox (2000) indicate that total earnings from the additional sales will be higher in the current period than past and next fiscal years. The net effect is that price discounts and reduction in selling prices will lead to lower margins relative to production costs which are likely to be abnormally high**.** In general, selling price reductions and lenient credit terms boost sales volumes temporarily to increase earnings.

3.2.2.5 Over Production

Roychowdhury (2006) indicate that firms can manage earnings upwards by producing more than necessary to meet demand. Higher production levels lead to economies of scale as fixed costs is spread over large quantities. Abnormal production costs for a given sale level is an indication of sales manipulation resulting from price discounts or cost of goods sold

(COGS) expense manipulation. Sales manipulation in the current year will increase reported earnings but it's at the expense of next fiscal year's earnings. As firms overproduce to spread the fixed overhead costs over a large number of units, reported earnings increase provided the decrease in per-unit cost is not offset by inventory holding costs such as rent, insurance, fire, theft etc. Thomas and Zhang (2002) observe that COGS decreases due to overproduction, but they note that the reduction in COGS can also be caused by adverse economic circumstances. Therefore, prior studies (Roychowdhury, 2006; Thomas and Zhang, 2002) conclude that firms engage in overproduction to reduce COGS expense in order to avoid reporting losses or increase their reported earnings. In general, when firms have high production costs, it signals real activities earnings management. This is consistent with firms cutting down selling prices or offering price discounts to increase sales revenue and reported earnings.

3.2.2.6 Debt/Equity Swaps Derivatives

Hand (1988) observes that firms undertake debt-equity swaps for two main reasons. The first reason is to smooth an unexpected and transitory decrease in earnings per share. The second reason is to relax potentially sinking-fund constraints. The study concludes that firms have higher motivation and incentive to engage in debt-equity swaps to smooth earnings than to relax potentially sinking fund constraints. Again, prior studies (Dechow and Shakespeare, 2009; Barton, 2001) indicate that firms intentionally retire debt early to receive substantial cash payment which is normally higher than the book value of the debt. This results in accounting gains or loss which are required by FASB to be reported as special or unusual items on the income statement. To manipulate earnings, firm managers select a fiscal period that will allow them to retire debt early. Even though, there is no actual

exchange of cash, debt for debt swaps (e.g. new debts are issued for old debts), debt for equity swaps (e.g. shares are issued for existing outstanding debts) are often implemented as an income smoothing tool.

3.2.2.7 Hedging and Securitisation

Dechow et al (2010) observe that securitisation and hedging typically occur in financial services industry (e.g. to repackage loans), retail (e.g. store credits cards), auto lease in manufacturing sector and in real estate industry where loans for commercial properties, land and domestic are provided. The firm sells receivables to obtain or augment cash flow, thus helping to relend to potential customers. Securitisation allows retained cash flows to be recorded at prevailing market price or fair value, and this creates an incentive for firms to manipulate reported earnings as there is no active market value for receivables sold. An industry specialist is reported to have stated that (The New York Times, 1st May, 2007) with regards to *"gain on sale accounting, firms have a tendency to create machines that manufacture earnings out of thin air".* Dechow et al (2010) observe that managers use discretionary gains in periods where earnings before securitisation is low. To avoid facing problems and scrutiny from existing and potential investors, regulators and the struggle to attract both customers and employees, firm managers engage in earnings manipulation. Prior studies (Dechow and Shakespeare, 2009; Karaoglu, 2005) indicate that there are benefits in reporting higher current earnings than the potential costs of future write-downs. On the contrary, when firms record a higher pre-securitisation earnings, the incentive record gains is reduced, they will prefer to report loss instead. Similarly, when pre-securitisation earnings are below previous year's actual earnings, firm managers are more

likely to manipulate earnings because firms are rewarded by the market for reporting positive earnings or improvements.

Previous studies (Kothari et al., 2016; Gerakos and Kovrijnykh, 2013; Zang, 2012, Rowchowdhury, 2006) indicate that managers manipulate earnings to boost reported performance through real activities. The limited literature that explores the potential for managers to use real activities to manipulate earnings to mislead stakeholders includes the following areas: cutting down expenses for advertising (Cohen et al., 2010); share repurchases (Hribar et al., 2006); disposal of profitable assets (Herrmann et al., 2003); reducing selling prices (Jackson and Wilcox, 2000); and debt-equity swaps, derivatives, hedging and securitisation (Dechow and Shakespeare, 2009; Barton, 2001). Related studies (Vorst, 2016; Roychowdhury, 2006; Gunny, 2005) indicate other reasons why managers engage in real activities management, such as limited ability to report discretionary accruals, the risky nature of accruals manipulation, and the fact that accruals must take place at the end of the year and managers face uncertainty as to which accounting treatments the auditor will allow at that time. Even though managers make decisions, auditors check compliance with standards and accounting treatments must meet international requirements.

Indeed, in examining the trade-off between accrual-based earnings management and real activities manipulation, Cohen and Zarowin (2010) report that with the enactment of the Sarbanes-Oxley Act (2002), there has been a decline in accrual-based earnings management, but that real activities manipulations have increased. Graham et al. (2005)

observe that meeting earnings targets (zero earnings, prior year earnings and analyst forecasts) is a strong motivational factor for financial executives to engage in aggressive reduction of research and development (R&D) costs, to delay maintenance and advertising expenditures, and to accelerate sales through price discounts, despite the fact that manipulation has the potential to cause a decline in firm value. This is simply because some of the real activities management in the current period might impact future cash flows negatively. For instance, offering price discounts in an attempt to boost sales revenue will enable firms to improve current period earnings targets, but may lead to high expectations of future discounts from customers. Producing in excess of the required quantities also generates huge inventory holding costs, such as rent, insurance, theft, fire and outmoded costs (Roychowdhury, 2006). Admittedly, there are costs associated with real activities manipulation in the long-run, however managers consider accrual-based earnings manipulation to be costly, at least in the short-term. Previous studies show that managers have a preference for real activities because they view real activities earnings management as ethically correct, not a GAAP violation, and they cannot easily be second-guessed by regulators and auditors (Zarowin, 2010). However, other studies indicate that real activities earnings management is more damaging than accrual-based manipulation due to the fact that real activities are ethical and morally appropriate (Jarvnen and Mallymaki, 2016; Zang, 2012).

Other studies (Merchant, 1990; Graham et al., 2005) observe that managers prefer using real activities to accrual-based earnings manipulation because depending on accruals alone is risky and subject to the scrutiny of auditors and regulators. The studies on real activities management have concentrated on managers opportunistically reducing the costs

associated with R&D, with the aim of improving reported income. For example, Bens et al. (2003) find that managers finance the repurchase of stocks to avoid earnings per share (EPS) dilution through employee stock option grants and stock option exercises, with the aim of reducing R&D expenditure. Similarly, Dechow and Sloan (1991) find that in order to increase reported earnings, CEOs cut down R&D expenses toward the end of their tenure, findings which are also corroborated by Baber et al. (1991) and Bushee (1998). In fact, several studies on real activities earnings management suggest that managers engage in other activities, including over production, in order to lower the cost of goods sold as closing inventory increases, or by providing limited discounts to boost reported sales revenues. For example, a substantial number of respondents in Graham et al.'s (2005) study report that they cut down discretionary expenditures or were engaged in reducing capital investments. Bartov (1993) indicates that firms which report higher profits from the sale of assets use this to mitigate the effect of negative earnings changes. Thomas and Zhang (2002) confirm that overproduction is used by managers to manipulate reported earnings, but also admit that adverse economic circumstances can influence production levels and real activities manipulations. Graham et al. (2005) indicate other forms of real activities, including delays or cuts in travel budgets and maintenance expenses, postponement or elimination of capital investments, management of pension funds, or securitisation of firm assets. Roychowdhury (2003) observes that abnormal production cost is an indication that sales have been manipulated by abnormal price discounts and cost of sales manipulation through overproduction.

Studies have attempted an examination of the relationship between religious social norms and earnings management, but with mixed results. For example, in a cross-country study

Callen et al. (2011) observe that religion does not mitigate earnings management. At the national level, McGuire et al. (2012) and Dyreng et al. (2012) also report a positive relationship between real activities based earnings management and religiosity. In addition, Hillary and Hui (2009) find that firms headquartered in a highly religious environment demonstrate more traditional corporate investing behaviour compared to firms headquartered in areas with fewer religious adherents. Notwithstanding the above, the desire to meet earnings targets as a result of capital market pressures renders all managers susceptible to upward or downward earnings management. Zang (2012) and Gunny (2010) observe that firms that engage in real activities management perform better in reported earnings. Similarly, Bhojraj et al. (2009) and Doyle et al. (2013) establish a negative relationship between operating performance and firms that beat analyst forecasts through real activities.

Collectively, the above evidence from previous studies suggests that managers engage in real activities earnings management to influence reported earnings. Conceptually, this study argues that from the view point of social norm theory, managers with strong religious values working in a strong legal environment will be less inclined to engage in fraudulent financial reporting or earnings management practices because of their strong morals, values, beliefs and attitudes, and because of possible legal action that could affect their reputation. However, McGuire et al. (2012) observe that religious adherence does not exclude individuals from engaging in dishonest practices. Previous studies (McGuire et al., 2012; Dyreng et al., 2012; Callen et al., 2009) observe that real activities earnings management is not a GAAP violation, nor is subject to external monitoring or scrutiny of auditors. Therefore, it is possible that managers working in religious social norm

environments will be involved in real activities manipulation because there is no external monitoring or auditor vigilance, or that they will be constrained by the legal environment because of law suits, reputation concerns and fear of negative publicity as a result of law suits. Following the above discussions, this study argues further that it is also possible for managers of firms headquartered in highly religious environments, coupled with strong legal environments, to ignore top management pressure to engage in real activities because of the legal and ethical issues involved, as well as individual managers' self-identity. Following this, and the desire to meet earnings targets and market pressures, it is posited that managers working in highly religious and legal environments will be less inclined to engage in real activities earnings management to increase or decrease reported earnings. The following hypotheses are therefore presented for testing:

H2a: Real activities earnings management is related to the religiosity of the firm's environment.

H2b: Real activities earnings management is related to the interaction between religiosity and firms' legal environment.

3.2.3. Accrual-Based Earnings Management and Religiosity

Firms managers can influence reported earnings through accrual-based earnings management. Prior studies indicate that firms can accelerate or delay revenue recognition, overstate inventory, record obsolete inventory as part of assets, refuse to write-down slow-moving inventory, offer liberal credits terms, understate bad debts provisions or reduce bad debts by ignoring defaults, create fictitious receivables to support non-existent sales or

services (Cohen et al., 2010; Rankin et al., 2012). Similarly, the extant literature has identified other tools or forms of accruals-based earnings management use by firms such as; computing liberal useful life and residual value of assets, restating the useful life and residual value upwards or changing the useful life and residual value to meet earnings targets. Finally, firms can capitalise or manipulate some expenses (e.g. marketing expenses) to meet earnings targets. The various tools and methods used by firms to engage in accruals-based earnings management to influence firms' reported earnings are summarised in Figure 2 as follows.

Figure 2: Tools and Methods of Accruals-Based Earnings Management

Tools	Conservative	Moderate	Aggressive	Fraud
Revenue recognition on services	Services are prepaid and performed in full	Services prepaid and partially performed	Services are agreed to but not yet performed	Fraudulent scheme
Inventory	Lower of cost and net realizable value is consistently applied	Slow to write-down slow-moving inventory	Obsolete inventory is still recorded as an asset	Overstate inventory where non-existent inventory is recognised
Accounts receivable	Conservative credit terms and bad debts allowances used	Liberal credit terms and bad debts provision estimates	Liberal use of credit policies to expand sales; understate bad debts provisions or reduce bad debts by ignoring likely defaults	Fictitious receivables established to support non-existent sales or services
Depreciation	Conservative useful life and residual value computed	Liberal useful life and residual value computed	Restate useful life and residual value upward	Change useful life and residual value estimates to meet earnings targets
Advertising, marketing	Expensed as incurred	Expensed based on a formula; perhaps sales-based	Marketing costs are capitalised	Costs are capitalised and manipulated to meet earnings targets

Adapted from: Rankin et al. (2012), Contemporary Issues in Accounting, pp. 258-261

Previous studies (Horton, Serafeim & Serafeim, 2013; Zang, 2012; Matsumoto, 2002; Krull, 2004) document ample evidence of managers using the accrual-based earnings management method to manipulate accounting rules in order to report earnings figures that meet or beat the consensus analysts' forecasts. The difference between net income and cash flows results in accruals. For instance, firms create accrual of revenue during growth periods by selling goods and services on credit (Gerakos and Kovrijnykh, 2013). To engage in accrual-based earnings management, firms can decrease or increase income by creating non-discretionary accruals. However, of particular concern are the discretionary accruals which have an effect on reported earnings (Horton et al., 2013). For example, firms might engage in upward or downward adjustments in bad debts, inventory write-downs, warranty costs etc. The market penalises firms for not meeting earnings benchmarks, but rewards those that meet or exceed expectations. Following the passage of the Sarbanes Oxley Act of (2002), studies indicate that accrual-based earnings management appears to be decreasing (Cohen and Zarowin, 2010). Given the heightened regulatory environment, the risks and costs associated with being found to have engaged in accrual-based management is perceived to be higher than the rewards or benefits of managing earnings. For example, Robb (1998) observes that using loan loss provision to manipulate earnings upward is common with bank managers when analysts have reached a consensus in their earnings predictions. In a related study, Payne and Robb (2000) find that discretionary accruals are higher in firms with pre-managed earnings below analysts' earnings benchmarks and expectations. Similarly, Moehrle (2002) indicates that some firms manage earnings to beat analysts' forecasts by restructuring accrual reversals.

Furthermore, other studies (Badertscher, 2011; Cohen and Zarowin, 2010; Cohen et al., 2008; Roychowdhury, 2006; Graham et al., 2005) also indicate that managers manipulate earnings to boost firms' reported performance to stakeholders through accrual-based earnings management. These studies observe that the freedom and discretion to make choices and select suitable accounting policies within the GAAP include the choice of depreciation rates and methods (Gerakos and Kovrijnykh, 2013); revenue recognition and credit policies (Horton et al., 2013); deferred tax assumptions (Zang, 2012); and inventory valuation methods and bad debt provisions (Cohen and Zarowin, 2010), leading to the creation of abnormal accruals and consequently the manipulation of reported income. In addition, Cohen and Zarowin (2010) indicate that firms use accrual manipulation during season equity offerings and that discretionary accruals are more likely to be associated with earnings increases than real activities. In a related study, Daniel et al., (2008) studied accrual manipulations for firms with or without debt and observe that those with pre-managed earnings lower than the level of expected dividends manage earnings upwards through accrual manipulations. They interpret these results as indicating that firms with debt need to manage earnings upwards in order to avoid violating covenants that restrict the maximum level of dividend payout by reference to accounting earnings. Similarly, Armstrong, Guay and Weber (2010a) point to the need to treat the debt contract and characteristics of the accounting system as being jointly determined. In addition, Zhang (2008) corroborates prior findings and show that firms wishing to access public debt markets have an incentive to pre-commit to higher standards of financial reporting, and that those borrowers who report earnings more conservatively, all things being equal, pay lower rates of interest on their debt. Brown and Caylor (2005) observe that, for US firms, meeting and beating the consensus forecast has become more important over time. Prior to the mid-

1990s, loss avoidance or earnings decrease avoidance were more important thresholds, but since then meeting and beating forecasts has been dominant in the U.S. Similarly, Gore et al. (2007) for the UK, and Daske et al., (2006) for the EU, present evidence that UK and EU firms manage accruals to simply meet or beat consensus forecasts. Generally, firms manage earnings to meet or beat three types of thresholds: zero earnings (i.e. to avoid reporting a loss); last year's earnings (to avoid reporting an earnings decline); and the consensus of analysts' forecast.

Research (Rangan, 1998; Teoh et al., 1998; Shivakumar, 2000; DuCharme et al., 2004) indicates that accrual-based manipulations amount to GAAP violation, subject to external monitoring and auditors' scrutiny. Therefore, Bruns and Merchant (1990) indicate that managers prefer real activities manipulations to accrual-based methods on ethical grounds. In addition, Graham et al. (2005) observe that it is risky and costly to depend on accrual-based earnings management because of the close scrutiny of external monitors and auditors. Despite the expectation to meet earnings targets and capital market pressures, previous research (Callen et al., 2011; Dyreng et al., 2012; Hilary and Hui, 2009) observes that there is a negative relationship between the risk appetite levels of individuals and their religiosity. These studies observe that individuals who are risk seekers are more likely to engage in accrual-based earnings management. Dyreng et al. (2012) and Grullon et al. (2010) also report that firms in a highly religious environment report lower financial reporting irregularities. Similarly, McGuire et al. (2012) corroborate existing findings and indicate that firms headquartered in highly religious areas have lower accounting risk and misreporting associated with accounting restatements.

In addition, Cohen and Zarowin (2010) observe a decrease in accrual-based earnings management in the period following the passage of the Sarbanes Oxley Act (2002), suggesting that it has succeeded in subduing accrual earnings management. The accounting scandals that engulfed Enron, WorldCom, Arthur Andersen and others provided a platform for regulations regarding financial reporting to be tightened. For example, provisions such as 1) the establishment of the Public Company Accounting Oversight Board (PCAOB) as an oversight body of the public accounting industry; 2) the requirement that all CEOs and CFOs certify that to the best of their knowledge the financial statements are free of material misstatement; and 3) the prohibition of auditors from providing non-audit consulting services to their audit clients have helped to minimise accrual-based earnings management. Furthermore, Koh et al. (2008) investigated management incentive to engage in accrual-based earnings management so as to meet or beat analysts' targets in the period following the Sarbanes Oxley Act (2002). They conclude that accrual-based earnings management techniques were less prevalent in the post-accounting scandals of 1990 and 2000. In addition, the study finds that future cash flows are positively related to meeting or exceeding analysts' forecasts in the post-Sarbanes Oxley period, suggesting an improvement in the quality of earnings as accrual-based earnings management decreases. Therefore, this study predicts that managers whose firms are headquartered in a highly religious social norm environments will be less likely to be involved in accrual-based earnings management. It is also predicted that the interaction between religiosity and firms' litigation environment has an influence on accrual-based earnings management practices. Following the above arguments and the perception that accrual-based earnings management is manipulative and unethical, the hypotheses that follow are that:

H3a: Accrual-based earnings management is related to the religiosity of the firm's environment.

H3b: Accrual-based earnings management is related to the interaction between religiosity and firms' legal environment.

3.3. Research Design and Empirical Methodology

3.3.1. Measuring Religiosity

As detailed in Chapter 2, the study utilises the religious dataset published by the Religious Congregations and Membership Study (RCMS) from between 2000 and 2010 to measure the strength of religious social norms. Overall, 698 distinct counties are identified that are the headquarters of at least one of the firms on the Compustat annual database used in the analysis. The religious dataset covers all U.S. states. The study uses the adjusted 2000 and 2010 RCMS county-level religious datasets for the number of religious adherents and follows previous studies (Dyreng et al., 2012; Hilary and Hui, 2009; Alesina and La Ferrara, 2000) in using RCMS religious adherence values. This procedure yields annual county-level estimates of religiosity.

3.3.2. Measuring Litigation/Legal Environment

To measure the litigation environment, the study uses datasets from the Lawsuit Climate Survey conducted for the U.S. Chamber Institute for Legal Reform by the Harris Poll between 2000 and 2015. The aim is to determine how firms perceive the litigation environment and how it affects important business decisions. The respondents in each state were tasked to grade (A through to F) several key elements, including having and enforcing meaningful venue requirements; overall treatment of tort and contract litigation; treatment of class action and mass consolidation suits; damages; timeliness of summary judgement or dismissal; discovery, scientific and technical evidence; judges' and juries impartiality and competence. Several people were interviewed at the firm level, and respondents included general counsel, corporate counsel, associate or assistant counsel, or other senior litigators or attorneys. The remaining respondents were chief financial officers, accountants, finance directors and senior executives who were knowledgeable about or responsible for litigation in their companies. On average, respondents had 19 years' of relevant finance or legal experience, including that in their current position, and had been involved in or been familiar with litigation in their current companies for an average of 10 years. All the respondents were familiar with litigation or had litigated in the states they rated within the previous four years, 78% within the past three years. All industries were represented, but the most common industry sector was manufacturing. In 2015, 75% of respondents reported that a state's litigation environment was likely to impact on important business decisions in their companies, such as financial reporting and where to do business. This shows a significant improvement from the 70% in 2012 and 67% in 2010. The participants in the survey came from all the states in the U.S. and data were collected using

telephone interviews (telephone numbers were gathered from Hoovers Phone, InfoUSA, ALM Legal Intelligence and Leadership Directories) and email addresses were drawn from Hoovers Connect, Mail, ALM Law Journal, Today's General Counsel, National Data Group, InfoUSA, ALM Legal Intelligence and Leadership Directories). An electronic version of the alert letter was sent to each respondent, protected by a password. Respondents were screened to ensure that they had the relevant experience to answer the questions and the average annual or yearly responses between 2002 and 2015 from both telephone and online respondents totalled 5,346 responses or state evaluations. A computer-assisted telephone interviewing (CATI) system was used to make calls and input responses, thus boosting the reliability of the data reported. To further strengthen the reliability of the data, interviewers entered responses during the interview process to minimise clerical mistakes. The interview questions were answered before interviewers moved to the next question, ensuring that questions were not skipped. In addition, there was an online editing system that did not accept out of range punches, and required confirmation of feedback that appeared strange or explanations for variations between certain key responses. Several telephone call backs were made; in addition, alert letters were sent to respondents together with email invitations to help them take the survey at their own convenience. With regards to the online interviews, the interviewers used a self-administered online questionnaire facilitated by proprietary web-assisted interviewing software. To prevent respondents from answering the survey more than once, the e-mail version was password protected. Some respondents received an initial invitation and e-mail reminders. To compute state level litigation scores, each element was graded from A through to F, where A = 5.0 and F = 1.0. The mean grade was computed by converting the letter grade. Therefore, the mean score shown can also be referred to as a letter grade.

Finally, the overall ranking of the State Liability Systems table was developed by creating an index using the grades provided for each of the key elements, plus the overall performance grade. There was high correlation between the key elements, but it was determined to ensure that each element contributed equally to the final index. To create the index, the key elements, plus the overall performance, were rescaled from zero (0) to hundred (100), where A = 100, B = 75, C = 50, D = 25 and F = 0. Other evaluations that contained 6 or more, "not sure" or "decline to answer" responses were deleted.

The state-level litigation index scores were matched to their respective U.S. states by merging them by year using the state code identifiers from Compustat's company location code where firms were headquartered in order to derive the state-level litigation dataset. This study uses the litigation dataset covering all U.S. states. Admittedly, courts and localities within states vary in fairness and reasonableness; notwithstanding, respondents were asked to examine the state as a whole. Indeed, the results of sample surveys are often associated with sampling variation or error. The limitation of this survey is the fact that respondents were not asked extensive questions about each state. Moreover, survey studies are susceptible to errors such as refusal to be interviewed, question wording and order, interviewer error, and weighting by demographic control data (Hair Jr. et al., 2015). Therefore, it is probable that some states received low grades because of sampling errors, or because of the bad reputation of one or more of their counties or jurisdiction. Notwithstanding, the procedures followed by the Harris Poll ensured that errors were kept to a minimum. Table 3.1 shows the twenty highest and lowest litigation environments in the U.S. for the same study period.

Table 3.1: Comparison of Highest and Lowest Litigation Environments in the U.S.: 2002 -2015

Ten Highest Litigation Environment	Ranking Top States	Ten Lowest Litigation Environment	Ranking Bottom States
Delaware	1st = 76.5	West Virginia	1st = 46.3
Vermont	2nd = 73.8	Louisiana	2nd = 46.5
Nebraska	3rd = 73.0	Illinois	3rd = 48.0
Iowa	4th = 72.2	California	4th = 49.9
New Hampshire	5th = 70.7	Alabama	5th = 55.1
Idaho	6th = 70.5	New Mexico	6th = 55.2
North Carolina	7th = 70.2	Florida	7th = 56.0
Wyoming	8th = 69.7	Mississippi	8th = 56.3
South Dakota	9th = 69.5	Missouri	9th = 56.6
Utah	10th = 69.0	Arkansas	10th = 57.7

Notes: Table 3.1 shows a comparison of highest and lowest litigation environments in the U.S. compiled by the Harris Poll for the U.S. Chamber Institute for Legal Reform between 2002 and 2015. Since 2002, the Harris Poll has conducted year by year surveys of state liability systems and the lists above show the average of the overall rankings of state liability systems for the period of the study.

In the further analysis section, the litigation environment datasets for the twenty highest and lowest litigation environments compiled by the Harris Poll between 2002 and 2015 for the U.S. Chamber Institute for Legal Reform are used. Based on the ten criteria, Delaware emerged as the state with the strongest legal environment, whilst West Virginia was the state with the weakest environment across the ten measures of state liability systems in the U.S. The scores range from as high as 76 to as low as 36 as index scores of the state liability system.

Table 3.2: List of Variables and Definitions

Variables	Proxy	Definition
Religiosity	*REL*	Strength of religiosity for each U.S. county measured by the Association of Statisticians of American Religious Bodies (ASARB) surveys. The results of these surveys are published on the website of the Association of Religious Data Archive (ARDA). The average of each county's religiosity score is weighted by its population.
Litigation Environment	*LEGAL*	The average index score of the overall ranking of the state liability systems by the Harris Poll for each U.S. state. The results of these surveys are published on the website of the U.S. Chamber Institute For Legal Reform.
Religiosity X Litigation Environment	*REL x LEGAL*	Religiosity multiplied by legal environment.
Abnormal Accruals	ABNOR_ACC	Measure of abnormal accruals or residuals using the cross-sectional modified Jones model in equation 1. (McGuire et al., 2012; Defond and Jiambalvo, 1994; Dechow et al., 1995) See below.
Discretionary Expenses	D_EXP	Measured as the aggregate of advertising expenses, R&D expenses, and SG & A expenses scaled by lagged total assets.
Abnormal Discretionary Expenses	ABNOR_DEXP	Estimated after regressing discretionary expenses on the inverse of lagged total assets and lagged sales scaled by lagged total assets. The figure for *(ABNOR_DEXP)* is multiplied by negative one (-1); consequently, a higher *(ABNOR_DEXP)* figure represents higher real earnings management.
Cash Flow from Operations	CASFO	It's the cash flow from operational activities scaled lagged total assets.
Abnormal Cash Flow	ABNOR_CASH	Estimated by regressing CASFO scaled by lagged total assets on the inverse of lagged total assets, sales scaled by lagged total assets, and change in sales scaled by lagged total assets. The figure for *(ABNOR_* CASH*)* is multiplied by negative one (-1); consequently, a higher *(ABNOR_* CASH*)* figure represents higher real earnings management.

Production Costs	PCOST	Measured as the aggregate of cost of sales and change in inventory during the year, scaled by lagged total assets.
Abnormal Production Costs	ABNOR_PCOST	Residuals estimated by regressing PCOST on the inverse of lagged total assets, sales scaled by lagged total assets, and change in sales scaled by lagged total assets. The figure for *(ABNOR_PCOST)* is NOT multiplied by negative one (-1); consequently, a higher *(ABNOR_PCOST)* figure represents higher real earnings management.
Real Earnings Activities 1	REALMGMT1	Calculated as the aggregate of abnormal discretionary expenditures *(ABNOR_DEXP)* and abnormal production costs *(ABNOR_PCOST).* The higher the value, the higher the levels of real earnings management.
Real Earnings Activities 2	REALMGMT2	Calculated as the aggregate of abnormal discretionary expenditure *(ABNOR_DEXP*) and abnormal cash flows (*ABNOR_CASH*). The higher the value, the higher the level of real earnings management.
Total Assets	TA	Measured as total non-current assets plus total current assets.
Size of the Firm	SIZE	The natural log of total assets.
Analyst Following	ANALYST_FOL	Number of financial analysts following the firm in the I/B/E/S summary file.
Return on Assets	ROA	Measured as net income before extraordinary items, divided by average total assets.
Leverage	LEV	Total liabilities scaled by total assets.
Presence of Big 4 Auditors	BIG4	A value of 1 if the firm was audited by one of the big 4 auditors, otherwise zero.
Market to Book Value	MBV	Measured as total assets divided by market capitalization.
Reported Loss	LOSS	An indicator variable that equals 1 if income before extraordinary items was negative in the current or previous two fiscal years, and 0 otherwise.
Operational Risk	OP_RISK	Estimated as five year rolling standard deviation of operating cash flows estimated from both the current and previous four years.

Firms Located in Rural Areas	RURAL	Indicator variable that equals 1 if the firm is headquartered outside the 490 largest counties in the sample, and 0 otherwise.
Benchmark	BENCHMARK	The indicator value is 1 if (a) net income scaled by total assets is more than or equal to 0 and less than 0.01. Alternatively, if the change in net income scaled by total assets from the previous to the current year is greater than or equal to 0 and less than 0.01, and 0 otherwise.
Auditor Tenure	TENURE	Natural log of the number of years the auditor has been with the firm.
Change in GDP	CHANGE_GDP	Annual percentage change in GDP.
Firm Level of Investment	INVESTMENT	Percentage of capital expenditure at the beginning of the year (t) to total net property, plant and equipment at the end of the year (t).
Net Operating Assets	NOA	Defined as the sum of shareholders' equity less cash and marketable securities, plus total debt at the beginning of the year, scaled by total assets at the beginning of the year.
Population	POPN	Natural log of the estimate of the population for each U.S. state in millions.
Income	INCOME	Household income for each U.S. state in ten thousands ($) estimated by the Census Bureau.
Education	EDU	A measure of the adult population of each U.S. state with a college education, estimated by Gallup interviews.
Age of Respondents	AGE	Average age of residents in each U.S. state, based on responses from Gallup interviews.
Minority	MIN	Percentage of racial minorities in each U.S. state, based on responses from Gallup interviews.
Political	POL	Percentage of the population that are affiliated with the Republican Political Party.
CEO-Tenure	CEO_TEN	Measured as the number of years a CEO has held the position in the organisation.
Audit Committee Presence	AUCOM	A dummy variable coded as 1 if the company has an audit committee, otherwise zero.
Independent Board	IND_BOARD	Calculated as the number of independent directors divided by the total number of directors on the board. Defined as non-executive directors holding less than 5%

		of the voting securities and having no direct or indirect interest or relationship that could reasonably influence their objective judgment and decision making.
Board Size	BODSIZE	Total number of directors on the board.
Religiosity Interacts with Board Size	RELBODSIZE	Religiosity multiplied by Board Size.
Religiosity Interacts with Board Independence	RELBODIND	Religiosity multiplied by Board Independence.
Religiosity Interacts with Audit Committee	RELAUCOM	Religiosity multiplied by Audit Committee.
Religiosity Interacts with CEO Tenure	RELCEOTEN	Religiosity multiplied by CEO Tenure
Normal Core Earnings	NOR_CE	This is the core earnings that are actually expected to occur in the normal course of business activity, devoid of classification shifting. The study follows McVay's (2006) expectation model in equation 6.
Reported Core Earnings	REP_CE	Estimated as sales – cost of goods sold – selling, general and administration expenses. Depreciation and Amortization are excluded from Cost of Sales, Selling, General and Administrative Expenses.
Unexpected Core Earnings	UNEXP_CE	It's the difference between reported and normal or expected core earnings (McVay, 2006).
Asset Turnover	ATO	Sales scaled by average net operating assets, where net operating assets are the difference between operating assets and operating liabilities. Operating assets = total assets – cash and cash equivalent. Operating liabilities = total assets – total debt - book value of common equity – preferred equity – minority interests.
Total Accruals	TAC	Difference between earnings before extraordinary items and discontinued operations and the cash flow from operational activities, scaled by lagged total assets.

Operating Accruals	ACCRUALS	Operating Accruals = (net income before extraordinary items – cash flow from operation)/sales.
Working Capital Accruals	WC_ACCRUALS	Measured as earnings before extraordinary items, plus depreciation and amortisation, minus cash flow from operational activities.
Percent Change in Sales	ΔSales	$(Sales_t – Sales_{t-1})/ Sales_t$
% change in Sales	NEG_ΔSales	where ΔSALES is less than 0, otherwise zero.

3.4. Earnings Management Metrics

In this section, it is shown how accrual-based and real activities earnings management proxies are measured in line with the previous literature. There is difficulty in detecting earnings management by external monitors without the application of different measures used in the literature as proxies for earnings management (Cohen & Zarowin, 2010; Kothari et al., 2005). In line with previous research, the study uses different measures to proxy for accrual-based and real activities earnings management.

3.4.1. Measuring Accrual-Based Earnings Management

The cross-sectional modified Jones model is used to estimate discretionary accruals, as previous studies (Ball, 2013; Gerakos & Kovrijnykh, 2013; McGuire et al., 2012; Cohen and Zarowin, 2010; Dechow et al., 1995; Defond and Jiambalvo, 1994) report that it is effective. The model allows researchers to decompose discretionary accruals from non-discretionary accruals by adjusting change in sales for the change in receivables. This study estimates the model for each firm and industry, classified by its two-digit SIC code. This procedure partially enables the researcher to regulate the changes in economic conditions that affect industries and total accruals so that the coefficients differ across time. This study

subtracts change in accounts receivable (ΔAR_{it}) from change in sales ($\Delta SALES_{it}$) before estimating the residuals cross-sectionally and yearly for all firm-year observations in the same two-digit SIC code. To estimate abnormal discretionary accruals, total accruals is defined as income before extraordinary items, but after adjusting for operating cash flows scaled by lagged total assets. The Compustat data items for total accrual estimations = (Data123-(Data308-Data124)/(lagged Data6). The cross-sectional model is in the form of:

(1)

$$\frac{\mathrm{TAC_{it}}}{\mathrm{TA_{it-1}}} = \beta_0\left(\frac{1}{\mathrm{TA_{it-1}}}\right) + \beta_1\left(\frac{\Delta\mathrm{SALES_{it}} - \Delta\mathrm{REC_{it}}}{\mathrm{TA_{it-1}}}\right) + \beta_2\left(\frac{\mathrm{PPE_{it}}}{\mathrm{TA_{it-1}}}\right) + \varepsilon_{\mathrm{it}}$$

where TAC_{it} = EBXI-CASFO; EBXI is the earnings before extraordinary items and discontinued operations; CASFO is the cash flow from operational activities scaled by TA_{it-1}, (lagged total assets), $\Delta SALES_{it}$ (change in sales) is scaled by TA_{it-1}, lagged total assets, ΔAR_{it} is (change in accounts receivables) and PPE_{it} is net property, plant and equipment, scaled by TA_{it-1} lagged total assets. $\varepsilon_{\mathrm{it}}$ is the residuals representing the measure of earnings management as dependent variable in the model. In line with previous studies (Kothari et al., 2005; White, 1980), assets are used as a deflator to mitigate heteroscedasticity in residuals, but not to eliminate it, and a constant in the model estimation is also included in order (i) to manage heteroscedasticity not dealt with by using assets as a deflator, and (ii) to minimise the effect of omitted variables (Brown, Lo and Lys (1999). Discretionary abnormal accruals are used and it is anticipated that in a religious social norms environment, firm managers would be less inclined to manipulate accruals and for that matter report income upwards. Based on the previous studies cited above on

religiosity and earnings management, this study predicts a negative relationship between religiosity and abnormal accruals and that the interaction between religiosity and legal environment will be negatively related to accrual-based earnings management.

In addition, in the robustness test the study estimates discretionary abnormal accruals using other definitions of accruals used in the literature. Total accruals estimated in the modified Jones model in equation (1) are replaced by working capital accruals (WC_ACRUALS), defined as income before extraordinary items, plus depreciation and amortisation, minus cash flows from operating activities (Dechow et al., 2012; Peasnell et al., 1999). The revised modified Jones model is as follows:

(2)

$$(WC\_ACCRUALS) = \beta_0 \left(\frac{1}{\mathrm{TA_{it-1}}}\right) + \beta_1 \left(\frac{\Delta \mathrm{SALES_{it}} - \Delta \mathrm{REC_{it}}}{\mathrm{TA_{it-1}}}\right) + \beta_2 \left(\frac{\mathrm{PPE_{it}}}{\mathrm{TA_{it-1}}}\right) + \varepsilon_{\mathrm{it}}$$

where $WC\_ACCRUALS_{it}$ = IB+DP-OANCF; IB is the earnings before extraordinary items; DP are depreciation and amortisation; and OANCF is cash flow from operational activities. The Compustat data items for working capital estimations are (Data18 + Data 14-Data 308). Also in line with previous studies (Kothari et at., 2005; White, 1980), assets are used as a deflator to eliminate heteroscedasticity in residuals. Kothari et al. (2005) use performance-matched discretionary accruals and report that the modified Jones model is severely mis-specified for samples of firms experiencing non-random performance. However, Dechow et al. (2012) argue that Kothari et al.'s (2005) performance-matched accruals model

explains only 10%-12% of the variations in accruals and therefore distorts the measure of discretionary accruals. They indicate further that Kothari et al.'s (2005) model is prone to management discretion and bias. Consequently, this study maintains the modified Jones model and redefines the measure of discretionary abnormal accruals using working capital accruals to establish the impact of both religiosity and legal environment on accrual-based earnings management.

3.4.2. Measuring Real Activities Earnings Management

This study relies on previous ones to develop proxies for real activities earnings management. As in McGuire et al. (2012), it uses two measures to measure real activities earnings management. Initially, the study computes and aggregates abnormal cash flows (ABNOR_CASH), abnormal production costs (ABNOR_PCOST) and abnormal discretionary expenses (ABNOR_DEXP) for each firm and industry classified by its two-digit SIC code, using the model developed by Dechow et al. (1991). Abnormal cash flows (ABNOR_CASH) is computed as the deviations from the predicted values from the industry-year regression. The following cross-sectional regression model is run for each industry and year, as in previous studies (McGuire et al., 2012; Zang, 2012; Cohen and Zarowin, 2010; Cohen et al., 2008; Roychowdhury, 2006):

(3)

$$\frac{\text{CASFO}_{it}}{\text{TA}_{it-1}} = \beta_0 \left(\frac{1}{\text{TA}_{it-1}}\right) + \beta_1 \left(\frac{\text{SALES}_{it}}{\text{TA}_{it-1}}\right) + \beta_2 \left(\frac{\Delta\text{SALES}_{it}}{\text{TA}_{it-1}}\right) + \varepsilon_{it}$$

where CASFO is the cash flow from operational activities (Data308 – Data124) TA_{it-1}, lagged total assets, and $\Delta SALES_{it}$ is change in sales. As indicated above, sales represent annual sales revenue (Data12) and total assets (Data6) are the aggregate of both non-current and current assets. The figure for *(ABNOR_CASH)* is multiplied by negative one (-1), in line with previous studies (McGuire et al., 2012; Zang, 2012; Cohen and Zarowin, 2010; Cohen et al., 2008; Roychowdhury, 2006). Therefore, a higher *(*ABNOR_CASH) figure represents higher real activities earnings management. Abnormal production costs *(*ABNOR_PCOST) are also estimated as the deviations from predicted values from the industry-year regression. Following previous studies, abnormal production costs are estimated using the following regression model:

(4)

$$\frac{PCOST_{it}}{TA_{it-1}} = \beta_0 \left(\frac{1}{TA_{it-1}}\right) + \beta_1 \left(\frac{SALES_{it-1}}{TA_{it-1}}\right) + \beta_2 \left(\frac{\Delta SALES_{it}}{TA_{it-1}}\right) + \left(\frac{\Delta SALES_{it-1}}{TA_{it-1}}\right) + \varepsilon_{it}$$

where PCOST is the aggregate of cost of sales (Data41) and change in inventory during the year (Data3). Sales represent annual sales revenue (Data12) and total assets (Data6) is the aggregate of both non-current and current assets. Again, consistent with previous research (McGuire et al., 2012; Zang, 2012; Cohen and Zarowin, 2010; Cohen et al., 2008; Roychowdhury, 2006) the figure for *(*ABNOR_PCOST) is not multiplied by negative one (-1); consequently, a higher *(*ABNOR_PCOST) figure represents higher real earnings management.

Discretionary expenses are modelled as a function of lagged sales to avoid the problem of significantly lower residuals from running regression using current sales. Subsequently, abnormal discretionary expenses *(*ABNOR_DEXP*)* are computed from the predicted values from the industry-year regression. Following previous studies, abnormal discretionary expenses are estimated using the following regression model:

(5)

$$\frac{D\_EXP_{it}}{TA_{it-1}} = \beta_0 \left(\frac{1}{TA_{it-1}}\right) + \beta_1 \left(\frac{SALES_{it-1}}{TA_{it-1}}\right) + \varepsilon_{it}$$

where D_EXP is the aggregate of advertising expenses (Data45), research and development (R& D) expenses (Data46) and selling, general and administration (SG & A) expenses (Data189). Following previous studies (McGuire et al., 2012; Zang, 2012; Cohen and Zarowin, 2010; Cohen et al., 2008; Roychowdhury, 2006), where SG & A is available but advertising and R&D expenses are not available, the value of zero is given. Sales equal annual sales revenue, and assets (TA) is the aggregate of both non-current and current assets. Also in line with previous studies, the figure for *(*ABNOR_DEXP*)* is multiplied by negative one (-1), and consequently a higher *(*ABNOR_DEXP*)* figure represents higher real activities earnings management.

The residuals from abnormal cash flows (ABNOR_CASH), abnormal production costs (ABNOR_PCOST) and abnormal discretionary expenses (ABNOR_DEXP) are aggregated as proxies for the two measures of real earnings management. As previously indicated, firms that manipulate earnings upwards are characterised by unusually low cash flows from

operations, low discretionary expenses and high production costs. As in previous studies, the first proxy to measure real activities earnings management is REALMGMT1, abnormal discretionary expenses (ABNOR_DEXP) are multiplied by negative one (-1) and the results added to abnormal production costs (ABNOR_PCOST). The higher the aggregate of these two measures, the stronger the evidence that the firm is cutting expenses and is therefore involved in real activities earnings management. The second proxy for real activities earnings management is REALMGMT2. Again, consistent with previous studies, the study computes the aggregate of abnormal cash flows *(*ABNOR_CASH*)* and abnormal discretionary expenses (ABNOR_DEXP) after multiplying each of them by negative one (-1). These measures are multiplied by negative one (-1) to assess the extent of manipulation in sales and discretionary expenses, as the higher the results, the more likely the firm is engaged in managing earnings upwards. As indicated by Cohen and Zarowin (2010), the individual variables to be used to compute the proxies for real activities earnings management have varying impacts and therefore can change or provide misleading results when aggregated. In the robustness check, the study examines and reports on both aggregated measures and individual proxies for real earnings management to assess the impact of religiosity and legal environment on each of them.

3.4.3. Model Testing the Relationship between Religiosity, Firms' Legal Environment and Methods of Managing Earnings

The impact of religiosity and legal environment on accrual-based and real activities earnings management methods are investigated using McGuire et al.'s (2012) model to establish the extent to which religiosity and firms' legal environment affect the methods. The model is in the form:

$$(6) \quad EARNSMGMT = \beta_0 + \beta_1 REL + \beta_2 LEGAL + \beta_3 REL \times LEGAL + \beta 4 SIZE + \beta_5 ANALYST\_FOL + \beta_6 ROA + \beta_7 LEV + \beta_8 BIG4 + \beta_9 BMV + \beta_{10} LOSS + \beta_{11} OP\_RISK + \beta_{12} RURAL + \beta_{13} BENCHMARK + \beta_{14} TENURE + \beta_{15} RCHANGE\_GDP + \beta_{16} INVESTMENT + \beta_{17} NOA + \beta_{18} POPN + \beta_{19} INCOME + \beta_{20} EDUC + \beta_{21} POLITICS + \beta_{22} AGE + \beta_{23} MINORITY + \beta_{24} Industry\ Indicators + \varepsilon$$

EARNSMGMT is used to proxy for accrual-based and real activities earnings manipulation. First, the study proxies for accrual-based earnings management and computes abnormal accruals (ABNOR_ACC) using a cross-sectional modified Jones model. It is predicted that there will be a negative relationship between religiosity, legal environment and accrual-based earnings management; that is, managers in religious social norms and legal environments would be less inclined to manipulate accruals or, for that matter, report income upwards. Previous studies (McGuire et al., 2012; Hribar and Nicholas, 2007) observe that using absolute discretionary accruals can provide misleading results, therefore, making use of signed accruals establishes a clear association between legal environments, religiosity of the firms' environment and the method of managing earnings.

In addition, two proxies are used to measure real activities earnings management by aggregating abnormal cash flows (ABNOR_CASH), abnormal production costs (ABNOR_PCOST) and abnormal discretionary expenses (ABNOR_DEXP) for each firm (McGuire et al. 2012). However, Cohen and Zarowin (2010) observe that theoretically it would not be appropriate to add all three measures because both abnormal production costs and abnormal cash flows share common cost activities. The first of the two proxies for real earnings management *(REALMGMT1)* is the aggregate of abnormal discretionary expenses (ABNOR_DEXP) and abnormal production costs (ABNOR_PCOST). The second proxy for real earnings management *(REALMGMT2)* is estimated as the total of abnormal discretionary expenses (ABNOR_DEXP) and abnormal cash flows (ABNOR_CASH). To avoid double counting of costs, both abnormal discretionary expenses and abnormal cash flows are multiplied by (-1). This results in reduced core expenses, higher estimated core earnings and therefore a higher measure of real earnings management (Zang, 2012; McGuire et al., 2012; Cohen and Zarowin, 2010). To test hypotheses H1-H3, the study examines the coefficient of the religiosity, legal environment and interaction between religiosity and firms' legal environment (*REL, LEGAL and REL x LEGAL)* and anticipates a negative coefficient on *REL, LEGAL* and *REL x LEGAL*, and a negative relationship between REL, *LEGAL* and *REL x LEGAL* and accrual-based earnings management, but a positive association between REL, *LEGAL* and *REL x LEGAL* and real earnings management.

3.4.4. Control Variables

In addition to the variable of interest, additional firm-level and county-level demographic control variables are included, which earlier research indicates are the determinants of

accrual-based and real activities earnings management. In particular, the study controls for the presence of the Big4 auditors, analyst following, profitability, auditor tenure and growth opportunities, because research indicates that these factors impact on the choice of earnings management method (McGuire et al., 2012; Cohen and Zarowin, 2010). For example, Becker et al. (1998) observe that there is a negative association between audit quality and earnings management. In addition, the study controls for firms located in rural areas because previous research (Walker, 2013; Urcan, 2007) observes that higher earnings quality is associated with firms located in rural areas. Again, using percentage change in gross domestic product as a proxy for changes in economic activities, the study controls for differences in economic activities between years, as changes in economic conditions can impact on the real activities of firms (McGuire et al., 2012; Cohen and Zarowin, 2010; Cohen et al., 2008). Given the costs associated with each method of manipulating earnings, the net operating assets of each firm are included to control for earnings manipulation. In addition, the study controls for return on assets, as firm performance influences the choice of earnings management method (Cohen et al., 2008; Kothari et al., 2005). The poorer the performance of the firm, the keener will be the tendency to manipulate reported earnings by management. Therefore, a negative coefficient on return on assets is anticipated. Firm size is also included to control for the variations in accruals behaviour between large and small firms (Gul, Fung and Jaggi, 2009).

Previous studies (Ashbaugh, Lafond and Mayhew, 2003) indicate that small firms are more likely to engage in earnings management than large firms. Therefore, depending on the size of the firms in the sample, a negative or positive association is expected between earnings management and firm size. To secure external financing, previous studies (Chung and

Kallupur, 2003; Johnson and Nelson, 2002) indicate that management might manage reported earnings upwards. Therefore, this study controls for leverage, estimated as the ratio of long-term debt to total assets, as earlier studies indicate that manipulating earnings upwards allows firms to meet debts covenants (Zang, 2012; Badertscher, 2011; Yu, 2008; Sweeney, 1994). In addition, DeFond and Jiambalvo (1994) report that firms with a higher debt (leverage) have the tendency to manipulate earnings because of debt covenants, therefore a positive relationship between leverage and earnings management is expected. Furthermore, the study controls for firms reporting operational loss in the previous year because Francis and Yu (2009) observe that there is a positive relationship between earnings management and prior year losses, but a negative one between firms reporting profits in the previous year and earnings management. However, the sign of operating loss can be negative or positive, depending on whether earnings management is income decreasing or increasing.

3.5. Data Sample Selection and Descriptive Statistics

As detailed in Chapter 2, the study collect data from all the firms on the Compustat database between 2002 and 2015 which are identified as having the required datasets. Additional financial data is obtained from other sources, including Annual Reports and Audit Analytics. In line with previous research, data from specialised industries such as banks and insurances companies, as well as other financial services, are excluded from the datasets (Donelson et al., 2016; McGuire et al., 2012; Zang, 2012). Financial services companies with Standard Industry Classification code (SIC) 60-69 are deleted, as previous studies (Francis and Yu, 2009; Maijoor and Vanstraelen, 2006) indicate that their accruals generating processes differ significantly and require specific accounting rules and

requirements; for example, minimum capital requirements and specific regulations governing financial service companies. Firms with missing data and those with fewer than eight firm-year observations to estimate discretionary accruals are also excluded (Cohen and Zarowin, 2010; Francis and Yu, 2009). In addition, to avoid bias resulting from the inclusion of insignificant firms in the sample, any observation with a revenue of less than $1,000,000 (Ball and Shivakumar, 2008) is excluded, thus reducing the number of firms and firm-year observations with all the necessary variables to 1,416 and 21,729 respectively. The final sample is used to estimate discretionary accrual and real activities earnings management measures. Tables B1 and B2 (Appendix B) provide a detailed breakdown of the sampling procedure and firms' classification by year and industry.

The legal environment datasets are obtained from the Lawsuit Climate Survey conducted by Harris Polls for the U.S. Chamber Institute for Legal Reform between 2002 and 2015. The study uses state-level litigation index scores to match and merges them with their respective U.S. states using the state code identifiers from Compustat's firm headquarters location code to derive the state-level litigation dataset. As also detailed in Chapter 2, religious data are collected from the Religious Congregations Membership Study (RCMS), compiled by the Association of Statisticians of American Religious Bodies (ASARB), to create a proxy for religiosity. In Chapter 2, the procedure and measurement of the religiosity data are clearly outlined, with their limitations. Therefore, in Chapter 3 the study will not enter into an in-depth discussion of this. Furthermore, 698 unique counties are identified that are the headquarters for at least one firm in the study between 2002 and 2015. As discussed, the county-level religiosity and litigation scores are matched to their respective U.S. states by merging them year by year into Compustat, using the state code

identifiers from Compustat's company location code of where firms are headquartered in order to derive the state-level religious and litigation datasets. The data requirement for each dependent and independent variable is a function of the number of observations and tests required for the analyses. All the financial data for earnings management are accessible from Compustat and Annual Reports.

3.5.1. Descriptive Analysis

Table 3.3 provides descriptive statistics for the measure of legal environment (LEGAL) and religiosity (REL). The table shows that the mean and median U.S. legal environment is approximately 68% and 72% respectively, suggesting that the legal environment is very strong in the U.S. This is consistent with the results of Baxamusa and Jalal (2014). However, average religiosity in the U.S. is approximately 54% and the median is 52%. This result suggests that 54% of people in all U.S. counties are affiliated with a particular religion, attend a religious activity or consider religion to be important in their life. The results are consistent with McGuire et al. (2012), who indicate that religiosity in the U.S. appears to be declining, in line with the 2008 American Religious Identification Survey, which reports a substantial decline in religiosity in the U.S. population between 1990 and 2008.

Table 3.3 Descriptive Statistics for Religiosity and Legal Environment

Variable	Mean	Std. Dev.	Q1	Median	Q3	Skewness	Kurtosis
REL	53.5	18.07	36.27	52.47	63.33	0.83	2.69
LEGAL	68.09	8.26	61.7	71.5	75.6	0.73	2.54

Notes: REL is the variable of interest, measured as the average of U.S. counties' religiosity score weighted by the county's population for years 2000 and 2010. LEGAL = a measure of the average index score of the overall ranking of the state liability systems produced by Harris Poll for each U.S. state.

Table 3.4 Descriptive Statistics for Dependent and Demographic Control Variables

Variable	Mean	Std. Dev.	Q1	Median	Q3	Skewness	Kurtosis
ABNOR_ACC	-0.01	0.24	-0.02	-0.14	0.03	-0.62	2.62
REALMGMT1	-0.02	0.35	-0.48	-0.21	0.02	-0.17	1.52
REALMGMT1	-0.29	0.43	-0.55	-0.27	0.04	-0.16	1.51
POPN	2.61	0.08	2.52	2.6	2.68	-0.5	1.5
INCOME	10.86	0.09	10.84	10.88	10.93	-1.02	2.53
EDUC	85.98	2.71	83.9	87.2	87.67	-1.08	2.87
AGE	40.44	1.83	40.02	40.35	41.89	-0.84	2.94
MIN	30.58	12.42	19.69	25.83	38.47	0.95	2.71
POL	41.61	3.14	39	41	43	0.09	2.87

Notes: ABNOR_ACC is a measure of abnormal accruals or residuals using the cross-sectional modified Jones model in equation 1 (McGuire et al., 2012; Defond and Jiambalvo, 1994; Dechow et al., 1995); REALMGMT is calculated as the aggregate of abnormal discretionary expenditures (ABNOR_DEXP) and abnormal production costs (ABNOR_PCOST)t; REALMGMT2 is calculated as the aggregate of abnormal discretionary expenditure (ABNOR_DEXP) and abnormal cash flows (ABNOR_CASH; POPN = the natural log of the estimate of the population for each U.S. state in millions; INCOME = household income for each U.S. state in ten thousands ($), estimated by the U.S. Census Bureau; EDU = a measure of the adult population in each U.S. state with a college education, estimated by Gallup interviews; AGE = average age of residents in each U.S. state, based on the responses from Gallup interviews; MIN = percentage of racial minorities in each U.S. state, from responses to the Gallup interviews; and POL = percentage of the population that are affiliated with the Republican political party.

Table 3.4 presents descriptive statistics for all the dependent variables (ABNOR_ACC, REALMGMT1 and REALMGMT2) which are proxies for accrual-based and real-activities earnings management methods. Consistent with previous studies (McGuire et al., 2012; Omer et al., 2015) the univariate statistics appear similar to other distributions for all dependent variables which are winsorized at the first and 99th percentiles. For example, the mean and median of ABNOR_ACC, REALMGMT1 and REALMGMT2 are approximately equal to zero, in line with earlier studies (Cohen and Zarowin, 2010; Roychowdhury, 2006). In addition, the demographic control variables show similar distributions to previous studies. For example, average age is approximately 40 years and 86% of the population have a minimum of a college education. In addition, approximately 42% of the population are affiliated with the Republican Political Party and the average minority population is roughly 31%. To control for skewness and kurtosis in the income and population variables, in line with previous studies (McGuire et al., 2012; Omer et al., 2015) the natural log of each county's income and population is taken. The original data show that on average each county has a population of 3.9 million people and average household income is $91,700 per year.

Table 3.5: Descriptive Statistics for Firm-Level Control Variables

Variable	Mean	Std. Dev.	Q1	Median	Q3	Skewness	Kurtosis
SIZE	5.68	1.76	3.39	5.19	6.88	0.86	2.83
ANALYST_FOL	2.91	1.4	2.00	3.00	4.00	0.28	2.03
ROA	-0.31	0.14	-0.03	0.04	0.08	-1.59	2.77
LEV	0.15	0.16	0.00	0.1	0.25	0.89	2.67
BIG4	0.69	0.31	1.00	1.00	1.00	-2.49	3.19
MBV	2.01	1.21	1.02	1.75	2.91	0.49	1.98
LOSS	0.48	0.50	0.00	0.00	1.00	0.06	1.00
OP_RISK	0.65	16.35	0.23	0.5	0.86	0.91	2.79
RURAL	2.9	0.12	2.82	2.88	2.98	0.72	2.91
BENCHMARK	0.04	0.11	-0.04	0.04	0.08	-1.11	3.15
TENURE	1.31	0.57	1.10	1.39	1.79	-0.72	3.06
CHANGE_GDP	1.89	1.65	0.80	1.7	2.70	0.89	3.29
INVESTMENT	0.08	0.06	0.04	0.07	0.11	0.94	3.01
NOA	0.78	1.26	0.39	0.49	0.88	-0.16	1.57

Notes: SIZE is the natural log of total assets; ANALYST_FOL is the number of financial analysts following the firm in the I/B/E/S summary file; ROA is return on assets measured as net income before extraordinary items, divided by average total assets; LEV is financial leverage, measured as total liabilities scaled by total assets; BIG4 = an indicator variable equal to a value of 1 if the firm was audited by the big 4 auditors, otherwise zero; MBV is measured as total assets divided by market capitalization; LOSS = an indicator variable that equals 1 if income before extraordinary items was negative in the current or previous two fiscal years, and 0 otherwise; OP_RISK is estimated as the five year rolling standard deviation of operating cash flows estimated from both the current and previous four years; RURAL = indicator variable that equals 1 if the firm is headquartered outside the 490 largest counties in the sample, and 0 otherwise; BENCHMARK = an indicator value equal to 1 if (a) net income scaled by total assets is more than or equal to 0 and less than 0.01, or if the change in net income scaled by total assets from the previous to the current year is greater than or equal to 0 and less than 0.01, and 0 otherwise; TENURE = the natural log of the number of years the auditor has been with the firm; CHANGE_GDP = annual percentage change in gross domestic product; INVESTMENT = percentage of capital expenditure at the beginning of the year (t) to total net property, plant and equipment at the end of the year (t); and NOA is defined as the sum of shareholders' equity less cash and marketable securities, plus total debt at the beginning of the year, scaled by total assets at the beginning of the year.

Table 3.6: Correlations between Demographic Variables (Pearson Above/Spearman Below)

VARIABLE	REL	LEGAL	AGE	EDUC	POL	MIN	POPN	INCOME
REL		-0.20	-0.31	-0.36	0.41	0.15	-0.27	-0.35
LEGAL	-0.20		-0.41	- 0.40	-0.02	-0.36	-0.26	-0.42
AGE	-0.31	-0.41		-0.39	-0.22	-0.10	-0.36	-0.30
EDUC	-0.36	-0.40	-0.39		-0.38	0.14	0.12	0.37
POL	0.41	-0.02	-0.22	-0.38		0.10	-0.24	-0.32
MIN	0.15	-0.36	-0.10	0.14	0.10		0.27	0.26
POPN	-0.27	-0.26	-0.36	0.11	-0.24	0.27		0.47
INCOME	-0.35	-0.42	-0.30	0.38	-0.32	0.26	0.47	

Notes: REL is the variable of interest, measured as the average of U.S. counties' religiosity score weighted by the county's population for the years 2000 and 2010. LEGAL = a measure of the average index score of the overall ranking of the state liability systems produced by Harris Poll for each U.S. state; AGE = average age of residents in each U.S. state, based on the responses from Gallup interviews; EDUC = a measure of the adult population of each U.S. state with a college education, estimated by Gallup interviews; POL = percentage of the population that are affiliated with the Republican political party; MIN = percentage of racial minorities in each U.S. state, calculated from responses to Gallup interviews; POPN = natural log of the estimate of the population for each U.S. state in millions; and INCOME = household income for each U.S. state in ten thousands ($), as estimated by the U.S. Census Bureau.

Table 3.5 presents the univariate statistics for the firm-level control variables (*SIZE, ANALYST_FOL, ROA, LEV, BIG4, MBV, LOSS, OP_RISK, RURAL, BENCHMARK, TENURE, CHANGE_GDP, INVESTMENT, NOA*). The univariate results are similar to distributions in previous research (McGuire et al., 2012; Callen et al., 2011). Approximately 69% of the Big 4 auditors examine the financial records of the firms, and 48% of the firms reported a loss in the previous two years or the current financial year. In addition, an average of approximately three analysts follow each firms, and 2.9% of the firm-year observations are from rural counties. In Table 3.6 the study presents correlations between the litigation environment (LEGAL), religiosity (REL) and demographic control variables. Consistent with McGuire et al. (2012), the correlations between religiosity (REL) and the demographic control variables in each county are mainly negative, with the exception of residents in counties who are affiliated with the Republican political party and the percentage of racial minorities in each county. Similarly, correlations between the legal environment (LEGAL) and demographic control variables are mainly negative. This

finding is consistent with evidence presented in previous studies (McGuire et al., 2012; Dyreng et al., 2012; Grullon et al., 2010).

Tables 3.6 and 3.7 provide correlation between the firm-level control variables, litigation/legal environment (LEGAL) and religiosity (REL). Consistent with McGuire et al. (2012) and Callen et al. (2011), there is a negative correlation between religiosity (REL) and accrual-based earnings management (ABNOR_ACC), but a positive one between religiosity (REL) and the proxies for real earnings management (REALMGMT1 and REALMGMT2). Similarly, the study also finds a negative correlation between legal environment (LEGAL) and both accrual-based and real-activities earnings management. Earlier studies indicate that accrual-based earnings management results from financial reporting decisions. Therefore, the negative correlation between religiosity and accrual-based earnings management is expected, as for ethical and moral reasons managers in religious social norms environment might frown on the manipulation of accounting information. In a legal environment, managers are also careful because of litigation concerns, law suits and fear of loss of reputation.

In the following section, multivariate tests are performed to provide a more detailed interpretation of the association between religiosity, legal environment and the dependent variables. The firm-level control variables are associated with ABNOR_ACC, REALMGMT1 and REALMGMT2, in line with McGuire et al. (2012). For example, SIZE is negatively correlated with religiosity (REL) and demonstrates the risk appetite of firm managers who work in highly religious environments. SIZE, ROA and BIG4 are also negatively and significantly correlated with ABNOR_ACC, which indicates that large firms with high ROA, which are audited by the BIG4 with close external monitoring are

less likely to manage earnings through accrual-based earnings management. The correlations between the dependent variables, firm-level control variables and religiosity range from significant to less significant to insignificant. The correlation matrix below also shows that there is no multi-collinearity problems among the variables used in the model and therefore the study could include all the variables in a model. Similar to Chapter 2, the study conducts further test to ensure that there are no multi-collinearity problems. Specifically, the study computes and examines the variance inflation factor (VIF) for the independent variables in Chapter 3. The F-value is more than one (1) and the P-value is less than 0.05, suggesting a statistically significant effect of independent variables on the dependent variables. Greene (2012) and Kennedy (2008) indicate that a VIF of 10 or less is a good indication that there is no multi-collinearity among the independent variables in a correlation matrix. It is observed that the highest VIF score is 3.4 amongst all the independent variables. Appendix B, Table B3 provides the VIF and the associated tolerance levels (TOL) for all independent variables.

The multivariate analysis will help explain the extent of the relationships and highlight the importance of including these control variables.

Table 3.7: Correlations between Firm Level Variables in the Models (Pearson Above/Spearman Below)

	Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
(1)	REL		**-0.08**	**0.06**	**0.06**	-0.05	0.01	**-0.08**	**-0.02**	**0.04**	**-0.04**	**-0.01**	**0.04**	**0.09**	**0.02**	**0.02**	**0.01**	0.01	-0.05	0.06
(2)	ABNOR_ACCRUA	**-0.08**		-0.43	-0.42	-0.35	**-0.01**	**-0.08**	**-0.32**	**0.03**	**-0.01**	**0.10**	**0.14**	**0.01**	**-0.01**	**-0.29**	**-0.04**	**-0.01**	**-0.22**	0.05
(3)	REALMGMT1	**0.06**	-0.43		**0.39**	**-0.11**	**-0.07**	**-0.18**	**-0.16**	**0.12**	**-0.06**	-0.02	**0.06**	0.08	**-0.00**	-0.15	**-0.02**	-0.02	0.03	**0.17**
(4)	REALMGMT2	**0.06**	-0.42	0.39		-0.06	-0.07	-0.16	**-0.12**	0.14	-0.06	-0.03	**0.05**	0.07	**-0.00**	-0.10	**-0.02**	-0.02	**0.05**	**0.16**
(5)	LEGAL	-0.05	**-0.35**	**-0.11**	**-0.06**		-0.02	-0.33	**-0.18**	**0.17**	-0.11	-0.09	**0.01**	0.22	**-0.01**	**-0.17**	**0.02**	-0.01	**-0.01**	**0.39**
(6)	ANALYST_FOL	**0.01**	**-0.01**	**-0.07**	**-0.07**	**-0.02**		**0.02**	**-0.02**	**0.01**	**-0.01**	**0.02**	**-0.01**	**-0.05**	**-0.02**	**-0.02**	**0.00**	**0.02**	**0.00**	**0.02**
(7)	SIZE	**-0.08**	**-0.08**	**-0.18**	-0.16	**-0.33**	0.02		**0.10**	**0.32**	0.24	**0.18**	**-0.17**	**-0.03**	**0.01**	**0.09**	**0.00**	**0.01**	**-0.07**	**0.28**
(8)	ROA	**-0.02**	**-0.33**	**-0.16**	**-0.12**	**-0.18**	**-0.02**	**0.10**		**-0.20**	**0.00**	**0.35**	**-0.33**	**-0.05**	**0.04**	**0.31**	**-0.02**	**-0.01**	**0.01**	**0.03**
(9)	LEV	**0.04**	**0.03**	**0.12**	**0.14**	**0.17**	**0.01**	**0.32**	**-0.20**		0.09	0.01	**0.07**	**0.02**	**-0.01**	**-0.20**	**-0.02**	**-0.00**	**-0.04**	**-0.38**
(10)	BIG4	**-0.04**	**-0.01**	**-0.06**	-0.06	**-0.11**	-0.01	0.24	**0.00**	0.09		0.05	**-0.02**	**-0.03**	**-0.01**	**0.01**	**0.01**	**-0.01**	**-0.02**	**0.25**
(11)	MBV	**-0.01**	**-0.10**	**-0.02**	-0.03	**-0.09**	0.02	0.18	**0.35**	0.01	0.05		**-0.24**	**-0.03**	**0.03**	**0.35**	**0.03**	**-0.02**	**-0.12**	**0.14**
(12)	LOSS	**0.04**	**0.14**	**0.06**	**0.05**	**0.01**	**-0.01**	**-0.17**	**-0.33**	**0.07**	**-0.02**	**-0.24**		**0.03**	-0.02	**-0.38**	**-0.02**	**-0.02**	**-0.08**	**-0.18**
(13)	OP_RISK	**0.09**	**0.01**	0.08	0.07	**0.22**	-0.05	-0.03	**-0.05**	0.02	-0.03	-0.03	**0.03**		-0.02	**-0.01**	**-0.01**	**0.02**	**0.04**	-0.02
(14)	RURAL	**0.02**	**0.01**	**-0.00**	**-0.00**	**-0.01**	**-0.02**	**0.01**	**0.04**	**-0.01**	**-0.01**	0.03	**-0.02**	-0.02		**0.03**	0.01	**0.00**	-0.04	-0.00
(15)	BENCHMARK	**0.02**	**-0.29**	-0.15	-0.10	**-0.17**	-0.02	0.09	0.31	-0.20	**0.01**	0.35	**-0.38**	-0.01	0.03		0.02	**0.01**	-0.07	0.02
(16)	TENURE	**0.01**	**-0.04**	-0.02	-0.02	**0.02**	0.00	0.00	-0.02	-0.02	0.01	0.03	**-0.02**	-0.01	0.01	0.02		-0.02	-0.01	-0.02
(17)	CHANGE_GDP	0.01	**-0.01**	**-0.02**	**-0.02**	**-0.01**	**0.02**	**0.01**	**-0.01**	**-0.00**	**-0.01**	**-0.02**	**-0.02**	**0.02**	**0.00**	0.01	-0.03		0.02	-0.01
(18)	INVESTMENT	-0.05	**-0.22**	0.03	**0.05**	**-0.01**	**0.00**	**-0.09**	**0.01**	**-0.04**	**-0.02**	**-0.12**	**-0.08**	**0.04**	**-0.04**	**-0.07**	-0.01	0.02		-0.13
(19)	NOA	0.06	0.05	**0.17**	**0.16**	**0.39**	**0.02**	**0.27**	**0.03**	**-0.38**	**0.25**	**0.14**	**-0.18**	-0.02	-0.00	0.02	-0.02	-0.01	-0.13	

All variables are defined in Table 3.2. Bold co-efficients are significant at $p < 0.10$ (in a two tailed test).

3.5.1. Hausman Specification Test Statistics

As discussed in Chapter 2, the fixed effects (FE) model is used to run a series of regression results in Chapter 3. In line with McKnight and Weir (2009), the Hausman specification test is conducted to select the appropriate estimation model to test the hypotheses. The results after performing this test are shown below.

Table 3.8: Hausman Specification Test Statistics

Variable	**Chi2 (X^2)**	**P-value**	**Decision Fixed Effects**
ABNOR_ACC	145.27	0.0000	Fixed effects
REALMGMT1	197.18	0.0000	Fixed effects
REALMGMT2	261.48	0.0000	Fixed effects

Table 3.8 indicates that the regression models of the earnings management methods are in favour of the fixed effects model after running the Hausman specification test. The fixed effects regression model is implemented as the appropriate model to investigate the relationship between religiosity, legal environment and earnings management methods because the p-value is less than 5%. Again, the study conducts initial mis-specification tests for normality (using Kolmogorov-Smirnov test of normality), tests for the presence of heteroscedasticity, (using Breusch-Pagan tests for heteroscedasticity) and finally checks for serial correlation or auto-correlation (using Wooldridge test for auto-correlation in panel data). The results of these preliminary tests indicate that the data meet the requirements of normality, there is an absence of heteroscedasticity and auto-correlation or serial effects.

3.6. Empirical Regression Results and Discussions

The study has provided a descriptive analysis of the variables. In this section, the multivariate results and the linear regression of the panel data indicating the association between the dependent variables (ABNOR_ACC, REALMGMT1 and REALMGMT2) and the independent variables (REL, LEGAL and RELxLEGAL), as well as the specific firm-level and demographic control variables identified in this study are presented.

3.6.1. Testing the Relationship between Legal Environment and Accrual-based/Real Activities Earnings Management

The study now runs a series of regression results to test the hypotheses, following the backwards stepwise regression method, with the aim of (i) selecting a subset of variables that makes the regression model simple and with good predictive ability and (ii) minimising the variance that results from calculating unnecessary terms. To achieve robust results, several stepwise regressions are run for each dependent variable, but for the purpose of brevity only four stepwise regression results are provided, as the subsequent removal or addition of predictors did not influence the standard errors, t-values, coefficients or results of each variable in the model after the third and subsequent stepwise regressions were run. The dependent variables denote different measures of earnings management practised by firm managers. To test hypothesis 1, four separate regressions were run using model (6). Table 3.9 shows the regression results of the relationship between legal environment (LEGAL) and accrual-based (ABNOR_ACC) earnings management. Initially, all variables are included in the regression model and the results are shown in column (1). Thereafter, predictors (CHANGE_GDP and POPN) with insignificant p-values were dropped to re-run

the regression model. The results after dropping the predictors are shown in column (2). Predictors LOSS and TENURE with insignificant p-values are also dropped and the results are shown in column (3). Finally, in column (4) BENCHMARK and RURAL are dropped from the model. The associated co-efficient and t-values for LEGAL and ABNOR_ACC are (-0.004, -1.452; -0.004, -1.454; -0.004, -1.458; and -0.005, -1.458). Overall, it is observed that there is an insignificant negative association between LEGAL and ABNOR_ACC, suggesting that the legal environment has the potential to decrease accrual manipulation, but that the impact is negatively insignificant. This confirms the notion that earnings management is not illegal. The results are consistent with the findings of previous studies (Behn et al., 2013; Callen et al., 2011).

The study also follows the procedure above to examine the association between legal environment (LEGAL) and the two measures of real activities (REALMGMT1 & REALMGMT2) earnings management. The results are shown in columns (5) to (8) of Table 3.9. An insignificant negative association is observed between legal environment and the two measures of real activities earnings management. The associated co-efficient and t-values for LEGAL and REALMGMT1 are (-0.031, -1.076; -0.030, -1.072 and -0.030, -1.072). The insignificant negative relationship in Table 3.9 indicates that both accruals and real earnings management are not affected by firms' litigation environment. The result is consistent with earnings management not being associated with litigation risk because actual, not fraudulent, transactions are being reported as they actually happened. In fact, it shows that companies are sued for fraud, not necessarily less-than-optimal decisions. This finding is consistent with Callen et al, (2011) who observe an insignificant negative relationship between legal environment and earnings management methods.

Table 3.9: Regression of Legal Environment on Accrual-based and Real Activities Earnings Management

Variables	(Accrual-Based Earnings Management) Dependent Variables:				(Real Activities Earnings Management)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ABNOR_ACC	ABNOR_ACC	ABNOR_ACC	ABNOR_ACC	REALMGMT1	REALMGMT1	REALMGMT2	REALMGMT2
LEGAL	-0.004	-0.004	-0.004	-0.005	-0.031	-0.030	-0.021	-0.023
	(-1.452)	(-1.454)	(-1.458)	(-1.458)	(-1.076)	(-1.072)	(-1.547)	(-1.562)
SIZE	-0.065***	-0.064***	-0.063***	-0.062***	-0.447***	-0.441***	-0.313***	-0.304***
	(-9.287)	(-9.280)	(-9.272)	(-9.270)	(-9.292)	(-9.224)	(-9.663)	(-9.412)
ANALYST_FOL	-0.005*	-0.005*	-0.005*	-0.005*	-0.064	-0.063	-0.049	-0.048
	(-1.741)	(-1.741)	(-1.740)	(-1.740)	(-0.851)	(-0.848)	(-1.476)	(-1.472)
ROA	-0.125***	-0.124***	-0.123***	-0.122***	-0.187***	-0.184***	-0.201***	-0.198***
	(-3.016)	(-3.015)	(-3.014)	(-3.012)	(-3.247)	(-3.241)	(-4.087)	(-4.034)
LEV	0.034***	0.034***	0.032***	0.031***	0.085*	0.083*	0.064*	0.065*
	(3.875)	(3.875)	(3.868)	(3.865)	(1.784)	(1.776)	(1.701)	(1.704)
BIG4	-0.052**	-0.051**	-0.050**	-0.049**	-0.023	-0.022	-0.027*	-0.027*
	(-2.250)	(-2.248)	(-2.244)	(-2.242)	(-1.018)	(-1.017)	(-1.762)	(-1.762)
MBV	0.016***	0.016***	0.015***	0.014***	-0.026**	-0.024**	-0.096***	-0.095***
	(6.036)	(6.034)	(6.032)	(6.030)	(-2.183)	(-2.178)	(-5.718)	(-5.712)
LOSS	0.085	0.083			0.043*	0.042*	0.055**	0.054**
	(1.175)	(1.173)			(1.775)	(1.770)	(2.124)	(2.121)
OPERA_RISK	0.022***	0.022***	0.021***	0.021***	0.087***	0.084***	0.162**	0.160**
	(3.573)	(3.570)	(3.567)	(3.565)	(2.806)	(2.801)	(2.368)	(2.359)
RURAL	0.007	0.007	0.006		-0.053	-0.051	-0.071	-0.070
	(1.456)	(1.456)	(1.452)		(-1.078)	(-1.075)	(-1.274)	(-1.271)
BENCHMARK	0.027	0.026	0.025		-0.022*	-0.020*	-0.017*	-0.015*
	(0.754)	(0.753)	(0.752)		(-1.749)	(-1.735)	(-1.776)	(-1.762)
TENURE	-0.009	-0.009			-0.007		-0.003	
	(-0.493)	(-0.493)			(-0.274)		(-0.137)	
CHANGE_GDP	-0.008				-0.092*	-0.091*	-0.008	-0.007
	(-0.754)				(-1.763)	(-1.761)	(-1.224)	(-1.223)
INVESTMENT	-0.065**	-0.063**	-0.063**	-0.061**	0.026**	0.025**	0.030	
	(-2.118)	(-2.116)	(-2.116)	(-2.113)	(2.351)	(2.348)	(0.854)	
NOA	0.040***	0.039***	0.039***	0.038***	0.012**	0.011**	0.043***	0.042***
	(4.478)	(4.470)	(4.468)	(4.466)	(2.109)	(2.104)	(3.105)	(3.101)
POPN	-0.408				-0.082	-0.080	-0.079	-0.078

	(-1.478)				(-1.109)	(-1.108)	(-1.105)	(-1.103)
INCOME	-0.142**	-0.140**	-0.140**	-0.139**	-0.342*	-0.326*	-0.311	-0.310
	(-2.478)	(-2.473)	(-2.471)	(-2.467)	(-1.769)	(-1.754)	(-1.347)	(-1.345)
EDUC	-0.042***	-0.041***	-0.041***	-0.040***	-0.072***	-0.071***	-0.279***	-0.264***
	(-3.478)	(-3.472)	(-3.467)	(-3.464)	(-4.109)	(-4.107)	(-4.428)	(-4.415)
AGE	0.072***	0.071***	0.070***	0.068***	0.162**	0.160**	-0.479**	-0.457**
	(4.478)	(4.474)	(4.467)	(4.454)	(2.090)	(2.087)	(-3.432)	(-3.378)
POLITICAL	0.004**	0.004**	0.003**	0.003**	0.002		-0.009	
	(2.175)	(2.174)	(2.170)	(2.168)	(0.109)		(-0.050)	
MINORITY	-0.018	-0.018	-0.017	-0.017	0.112		0.085	
	(-1.478)	(-1.478)	(-1.473)	(-1.472)	(1.109)		(0.878)	
CONSTANT	0.734	0.732	0.731	0.731	0.654	0.654	0.679	0.679
	(1.046)	(1.042)	(1.041)	(1.041)	(1.320)	(1.320)	(1.208)	(1.208)
Industry Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
Observations	21,279	21,279	21,279	21,279	21,090	21,090	21,090	21,090
R-squared (Overall)	0.33	0.32	0.32	0.31	0.12	0.11	0.16	0.15
Breusch-Pagan	1178.83	1165.32	1158.54	1108.49	2581.76	2395.82	2266.63	2198.28
P-Value	(0.6581)	(0.6478)	(0.6255)	(0.6209)	(0.7673)	(0.7438)	(0.7193)	(0.7087)
Kolmogorov-Smirnov	683	678	674	672	435	339	237	233
P-Value	(0.6415)	(0.6406)	(0.6394)	(0.6388)	(0.4138)	(0.3726)	(0.2181)	(0.1896)
Wooldridge Test	119.26	117.69	115.56	121.62	88.43	82.78	152.78	150.36
P-Value	(0.3861)	(0.3756)	(0.3668)	(0.3926)	(0.2378)	(0.1981)	(0.2987)	(0.2853)

Notes: All variables are defined in Table 3.1b. The study uses *,**and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The co-efficient estimates are shown above and the t-statistics below in brackets.

Table 3.10: Regression of Legal Environment and Religiosity on Real Activities (1)

	Dependent Variable:			
VARIABLES	(1) REALMGMT1	(2) REALMGMT1	(3) REALMGMT1	(4) REALMGMT1
REL	0.273***	0.268***	0.264***	0.263***
	(3.287)	(3.281)	(3.278)	(3.276)
LEGAL	-0.029	-0.028	-0.027	-0.026
	(-1.064)	(-1.063)	(-1.062)	(-1.061)
REL x LEGAL	-0.165	-0.163	-0.161	-0.160
	(-1.387)	(-1.383)	(-1.380)	(-1.378)
SIZE	-0.365***	-0.363***	-0.362***	-0.360***
	(-5.627)	(-5.625)	(-5.624)	(-5.621)
ANALYST_FOL	-0.015	-0.014	-0.013	-0.012
	(-0.741)	(-0.738)	(-0.734)	(-0.731)
ROA	-0.342***	-0.338***	-0.332***	-0.329***
	(-4.016)	(-4.012)	(-4.006)	(-4.001)
LEV	0.134*	0.133*	0.132*	0.132*
	(1.875)	(1.870)	(1.867)	(1.865)
BIG4	0.052	0.052	0.052	0.050
	(1.250)	(1.250)	(1.250)	(1.248)
MBV	-0.138***	-0.136***	-0.135***	-0.132***
	(-7.036)	(-7.003)	(-6.976)	(-6.936)
LOSS	0.065*	0.060*	0.058*	0.057*
	(1.775)	(1.771)	(1.767)	(1.765)
OPERA_RISK	0.032**	0.032**	0.031**	0.030**
	(2.473)	(2.471)	(2.470)	(2.469)
RURAL	-0.017	-0.017		
	(-1.056)	(-1.056)		
BENCHMARK	-0.327*	-0.327*	-0.325*	-0.324*
	(-1.762)	(-1.762)	(-1.760)	(-1.756)
TENURE	-0.009	-0.009		
	(-0.593)	(-0.593)		
CHANGE_GDP	-0.018*	-0.018*	-0.017*	-0.017*
	(-1.854)	(-1.853)	(-1.851)	(-1.850)
INVESTMENT	0.185*	0.184*	0.182*	0.180*
	(1.818)	(1.814)	(1.810)	(1.808)
NOA	0.140**	0.139**	0.138**	0.137**
	(2.278)	(2.272)	(2.270)	(2.269)
POPN	-0.038			
	(-0.278)			
INCOME	-0.252*	-0.251*	-0.251*	-0.250*
	(-1.878)	(-1.877)	(-1.877)	(-1.876)
EDUC	-0.358***	-0.356***	-0.355***	-0.355***
	(-4.478)	(-4.474)	(-4.472)	(-4.472)
AGE	0.372**	0.370**	0.368**	0.367**
	(2.478)	(2.476)	(2.474)	(2.471)
POLITICAL	0.001			
	(0.175)			
MINORITY	0.019	0.019	0.019	
	(1.178)	(1.178)	(1.178)	
CONSTANT	0.064	0.064	0.064	0.064
	(1.046)	(1.046)	(1.046)	(1.046)
Industry Fixed Effects	YES	YES	YES	YES
Observations	21.090	21.090	21.090	21.090
R-squared (Overall)	0.12	0.12	0.11	0.11
Breusch-Pagan	2497.65	2358.32	2237.22	2145.41
P-Value	(0.7489)	(0.7381)	(0.7127)	(0.7036)

Kolmogorov-Smirnov	437	423	407	386
P-Value	(0.7437)	(0.7375)	(0.7238)	(0.7218)
Wooldridge Test	88.43	87.59	84.78	82.83
P-Value	(0.4137)	(0.4128)	(0.4113)	(0.4108)

Notes: All variables are defined in Table 3.1b. The study uses *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively. Co-efficient estimates are shown above and t-statistics below in brackets.

3.6.2. Testing the Relationship between Religiosity and Legal Environment Interactions on Real Activities (1)

To test Hypotheses 2a and 2b, four stepwise regressions are run to ascertain the impact of REL and the interactive term REL x LEGAL on the first measure of real activities earnings management (REALMGMT1). To run the model, REL and REL x LEGAL are included separately in the model; thereafter, the study includes both REL and the interactive term REL x LEGAL, but the results in Table 3.10 do not differ. Initially, two insignificant predictors with p-values (POPN, P-values = 0.887 and POLITICAL, P-values = 0.844) are dropped, and the resulting co-efficient and t-values for REL and REALMGMT1 are positive (0.273*** 3.287; 0.268*** 3.281; 0.264*** 3.278 and 0.263*** 3.276), suggesting that religious social norms increase real activities earnings management. On the contrary, the associated coefficients and t-values for the interactive term REL x LEGAL and REALMGMT1 are negative (-0.165 -1.387; -0.163 -1.383; -0.161 -1.380; and -0.160, -1.378), indicating that litigation environment and religious social norms of the firmhas an insignificant negative impact on real activities. Similarly, the following predictors with insignificant p-values are dropped from the model (TENURE, P-value = 0.613 and RURAL, P-value = 0.295) and no significant change in the standard error, t-values and coefficients of the remaining variables is observed. In addition, the study runs several regressions and consistently finds a significantly positive relationship between REL and REALMGMT1, but an insignificant negative association between the interactive term REL

x LEGAL and REALMGMT1 after controlling for both firm-level and demographic-level control variables. This finding is consistent with McGuire et al. (2012), who observe a positive relationship between real activities and religiosity in the U.S.

3.6.3. Testing the Relationship between Religiosity and Legal Environment Interactions on Real Activities Earnings Management (2)

To test hypotheses 2a and 2b, the study again runs four stepwise regressions to establish the association between REL, the interactive term REL x LEGAL and the second measure of real-activities earnings management (REALMGMT2). Initially, the study runs the model with all the variables and three insignificant predictors with high P-values (POLITICAL, P-value = 0.986; TENURE, P-value = 0.911; POPN, P-value = 0.602) are excluded from the model. Other predictors with insignificant p-values are also dropped; the association between REL and REALMGMT2 remains significantly positive, but between REL x LEGAL and REALMGMT2 insignificantly negative. Table 3.11 shows the resulting coefficients and t-values (REL = 0.057*** 3.315; 0.055*** 3.313, 0.054*** 3.311 and 0.052*** 3.309), suggesting that real activities increase in religious social norm environments. However, an insignificant negative relationship is observed between REL x LEGAL and REALMGMT2 (-0.076, -1.498; -0.075, -1.496; -0.075, -1.495 and -0.074, -1.493). The results in Tables 3.9 and 3.10 suggest that in religious social norm environment managers perceive real activities to be safe, less questionable, and less unethical. However, the interactive term REL x LEGAL is negative but insignificantly related to real activities, suggesting that in a religious environment, litigation risk does not induce real activities earnings management because real activities do not breach the law

Table 3.11: Regression of Legal Environment and Religiosity on Real Activities (2)

Dependent Variable:				
VARIABLES	(1) REALMGMT2	(2) REALMGMT2	(3) REALMGMT2	(4) REALMGMT2
REL	0.057***	0.055***	0.054***	0.052***
	(3.315)	(3.313)	(3.311)	(3.309)
LEGAL	-0.020	-0.020	-0.019	-0.018
	(-1.531)	(-1.530)	(-1.524)	(-1.521)
REL x LEGAL	-0.076	-0.075	-0.075	-0.074
	(-1.498)	(-1.496)	(-1.495)	(-1.493)
SIZE	-0.462***	-0.460***	-0.458***	-0.456***
	(-9.238)	(-9.231)	(-9.228)	(-9.225)
ANALYST_FOL	-0.056	-0.056	-0.055	-0.055
	(-1.551)	(-1.550)	(-1.548)	(-1.547)
ROA	-0.257***	-0.256***	-0.256***	-0.255***
	(-3.087)	(-3.086)	(-3.085)	(-3.084)
LEV	0.068*	0.066*	0.065*	0.065*
	(1.725)	(1.722)	(1.721)	(1.720)
BIG4	-0.042	-0.042	-0.042	
	(-1.015)	(-1.015)	(-1.015)	
MBV	-0.025**	-0.022**	-0.021**	-0.018**
	(-2.172)	(-2.170)	(-2.166)	(-2.162)
LOSS	0.043*	0.041*	0.040*	0.038*
	(1.775)	(1.772)	(1.770)	(1.767)
OPERA_RISK	0.086***	0.082***	0.080***	0.078***
	(2.850)	(2.797)	(2.748)	(2.714)
RURAL	-0.055	-0.052	-0.048	
	(-1.083)	(-1.081)	(-1.073)	
BENCHMARK	-0.024*	-0.022*	-0.024*	-0.024*
	(-1.754)	(-1.748)	(-1.754)	(-1.754)
TENURE	-0.006			
	(-0.271)			
CHANGE_GDP	-0.084*	-0.082*	-0.082*	-0.076*
	(-1.730)	(-1.724)	(-1.723)	(-1.716)
INVESTMENT	0.024**	0.022**	0.020**	0.018**
	(2.289)	(2.278)	(2.262)	(2.253)
NOA	0.011**	0.010**	0.010**	0.009**
	(2.102)	(2.100)	(2.092)	(2.078)
POPN	-0.079			
	(-1.106)			
INCOME	-0.354*	-0.353*	-0.352*	-0.352*
	(-1.776)	(-1.774)	(-1.771)	(-1.770)
EDUC	-0.094***	-0.092***	-0.084***	-0.081***
	(-5.088)	(-5.064)	(-5.027)	(-5.002)
AGE	0.254***	0.251***	0.250***	0.248***
	(3.090)	(3.084)	(3.080)	(3.079)
POLITICAL	0.001			
	(0.090)			
MINORITY	0.112	0.111		
	(1.109)	(1.107)		
CONSTANT	0.574	0.568	0.565	0.563
	(1.340)	(1.338)	(1.337)	(1.335)
Industry Fixed Effects	YES	YES	YES	YES
Observations	21.090	21.090	21.090	21.090
R-squared (Overall)	0.16	0.15	0.15	0.14
Breusch-Pagan	2251.63	2148.27	2108.28	2076.54
P-Value	(0.7193)	(0.7087)	(0.7024)	(0.7003)

Kolmogorov-Smirnov	237	235	229	234
P-Value	(0.2181)	(0.2169)	(0.2127)	(0.2176)
Wooldridge Test	152.78	148.23	143.43	150.62
P-Value	(0.2987)	(0.2980)	(0.2916)	(0.2974)

Notes: All variables are defined in Table 3.1b. The study uses *, ** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively. Co-efficient estimates are shown above and t-statistics below in brackets.

or accounting regulations. This finding is consistent with previous studies (McGuire et al., 2012; Callen et al., 2011), which find a significant positive relationship between religiosity and the two measures of earnings management. However, McGuire et al. (2012) failed to interact religiosity with firms' legal environment. The interactive term REL x LEGAL has a negative effect on real activities, even though the impact is negatively insignificant. The result shows that real activities manipulation are not violation of the law to attract litigation risk or lawsuit. That is, real activities do not involve fraudulent transactions and firms are sued for fraud not real activities. The findings of this study are consistent with McGuire et al (2012) and that confirm that religious social norm of the firm's environment is positively associated with real earnings management.

3.6.4. Testing the Relationship between Religiosity and Legal Environment Interactions on Accrual-based Earnings Management

Hypotheses 3a and 3b are further tested to assess the relationship between REL, REL x LEGAL and ABNOR_ACC. In in a stepwise manner, the study drops predictors with insignificant p-values, such as CHANGE_GDP (P-value = 0.969) and TENURE (P-value = 0.573), from the model. Thereafter, the following predictors are also dropped from the model (Benchmark, P-value = 0.528; Minority, P-value = 0.308; and Loss, P-value = 0.255) however, the subsequent removal of insignificant predictors does not influence the results of the remaining variables in the model. Table 3.12 provides the regression results. The

associated coefficients and t-values between REL and ABNOR_ACC are (-0.074** -2.415; -0.072**** -2.413; -0.069**** -2.402 and -0.063** -2.396) and between REL x LEGAL and ABNOR_ACC are (-0.137*** -4.651; -0.135*** -4.646; -0.132*** -4.639 and -0.131*** -4.632) respectively. The relationship between religiosity and abnormal accruals remains significantly negative at the 5% level throughout. The effect is very significant at the 99% confidence level when religiosity interacts with the legal environment. This suggests that religious social norms play a complementary role or strengthens the legal environment to decrease managers' accruals manipulation to influence reported net income. Perhaps, this is partly due to external monitoring, scrutiny, auditor vigilance and ethical implications involved. This finding is consistent with previous research (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012).

Table 3.12: Regression of Legal Environment and Religiosity on Accrual-Based Earnings Management

	Dependent Variable:			
	(1)	(2)	(3)	(4)
VARIABLES	ABNOR_ACC	ABNOR_ACC	ABNOR_ACC	ABNOR_ACC
REL	-0.074**	-0.072**	-0.069**	-0.063**
	(-2.415)	(-2.413)	(-2.402)	-(2.396)
LEGAL	-0.004	-0.004	-0.003	-0.003
	(-1.458)	(-1.457)	(-1.451)	(-1.449)
REL x LEGAL	-0.137***	-0.135***	-0.132***	-0.131***
	(-4.651)	(-4.646)	(-4.639)	(-4.632)
SIZE	-0.058***	-0.056***	-0.054***	-0.053***
	(-8.467)	(-8.452)	(-8.438)	(-8.424)
ANALYST_FOL	-0.005*	-0.004*	-0.003*	-0.002*
	(-1.766)	(-1.762)	(-1.754)	(-1.751)
ROA	-0.128***	-0.126***	-0.124***	-0.123***
	(-3.197)	(-3.182)	(-3.173)	(-3.164)
LEV	0.028***	0.024***	0.022***	0.021***
	(3.668)	(3.654)	(3.538)	(3.531)
BIG4	-0.056**	-0.054**	-0.053**	-0.052**
	(-2.376)	(-2.371)	(-2.366)	(-2.257)
MBV	0.016***	0.015***	0.015***	0.014***
	(6.035)	(6.034)	(6.032)	(6.028)
LOSS	0.084	0.081		
	(1.172)	(1.168)		
OPERA_RISK	0.022***	0.021***	0.020***	0.019***
	(3.573)	(3.570)	(3.568)	(3.564)
RURAL	0.007	0.006	0.005	
	(1.456)	(1.452)	(1.450)	
BENCHMARK	0.027	0.025	0.023	
	(0.754)	(0.750)	(0.748)	
TENURE	-0.009	-0.007		
	(-0.723)	(-0.722)		
CHANGE_GDP	-0.008			
	(-0.705)			
INVESTMENT	-0.068**	-0.066**	-0.065**	-0.063**
	(-2.194)	(-2.190)	(-2.186)	(-2.182)
NOA	0.054***	0.053***	0.050***	0.048***
	(4.562)	(4.557)	(4.546)	(4.541)
POPN	-0.386			
	(-1.414)			
INCOME	-0.142**	-0.140**	-0.138**	-0.134**
	(-2.478)	(-2.473)	(-2.468)	(-2.452)
EDUC	-0.042***	-0.041***	-0.037***	-0.034***
	(-3.478)	(-3.472)	(-3.457)	(-3.451)
AGE	0.064***	0.061***	0.057***	0.052***
	(4.408)	(4.396)	(4.388)	(4.376)
POLITICAL	0.004**	0.003**	0.003**	0.002**
	(2.175)	(2.174)	(2.168)	(2.156)
MINORITY	-0.018	-0.017	-0.016	-0.015
	(-1.424)	(-1.421)	(-1.420)	(-1.418)
CONSTANT	0.734	0.732	0.731	0.729
	(1.046)	(1.042)	(1.041)	(1.040)
Industry Fixed Effects	YES	YES	YES	YES
Observations	21.279	21.279	21.279	21.279
R-squared (Overall)	0.33	0.32	0.32	0.31
Breusch-Pagan	1387.27	1261.49	1179.68	1157.92
P-Value	(0.6872)	(0.6613)	(0.6583)	(0.6255)

Kolmogorov-Smirnov	676	672	667	658
P-Value	(0.6419)	(0.6415)	(0.6410)	(0.6398)
Wooldridge Test	121.62	118.29	115.64	114.56
P-Value	(0.3524)	(0.3512)	(0.3429)	(0.3412)

Notes: All variables are defined in Table 3.1b. The study uses *,** and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively. Co-efficient estimates are shown above and t-statistics below in brackets.

Overall, the study finds that the relationship between legal environment and earnings management methods is negative but not significant. However, accrual-based earnings management decreases significantly when religiosity interacts with legal environment. The interactive term REL x LEGAL on both measures of real activities is negative but not significant. Thus, the positive impact of religion on real activities noted in previous studies (McGuire et al.; 2012; Callen et al., 2011; Dyreng et al., 2012) can no longer be demonstrated when religiosity interacts with legal environment. The findings also suggest that both religiosity and legal environment play a complementary role in subduing accrual-based earnings management, and that the effect is acute when religious social norms interact with firms' legal environment. This finding is consistent with previous studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012), which observe that accruals manipulation is frowned on by managers in religious social norms environment because they deem it as unethical business practice. Such manipulations are also prone to regulators' and auditors' scrutiny.

It is further observed that there are also significant and insignificant levels of association between the firm-level control variables and ABNOR_ACC, REALMGMT1 and REALMGMT2. The study finds that the firm-level control variables are associated with accrual-based and real activities methods of managing earnings. For example, ROA is

negatively and significantly (1%) related to abnormal accruals and real-activities earnings management, suggesting that managers are more likely to manipulate reported profits upwards when the firm is performing poorly. Analyst following (ANALYST_FOL) is also negatively related (although not significant) to the proxies for earnings management, suggesting that firm managers are less likely to manage reported earnings when analysts are monitoring their performance. This finding is consistent with Behn et al. (2013), who find that analyst following is negatively related to earnings management practices.

Similarly, SIZE is negatively and significantly (at the 1% level) associated with ABNOR_ACC, REALMGMT1 and REALMGMT2, indicating that the sample includes larger firms than smaller ones. Ashbaugh et al. (2003) observe that small firms are more likely to manipulate reported profits than larger ones. Thus, the impact of earnings management decreases with greater firm size. A positive and significant relationship at the 1% level is also observed between leverage (LEV) and the proxies for accrual-based and real activities earnings management, because DeFond and Jiambalvo (1994) indicate that managers manipulate reported earnings upwards to meet debt covenants or contracts. A positive association is also found between LOSS and the proxies for earnings management, consistent with prior research. For example, Francis and Yu (2009) observe that firms that made a loss in previous years are more likely to manage profits upwards in the current year, and that those who made profits in the previous years have the tendency to manipulate profits downwards.

The remaining firm-level control variables exhibit their expected sign and significance levels. For example, NOA is positively (at the 1% significance level) related to ABNOR_ACCRUALS and REALMGMT2, but positively related to REALMGMT1 at the

10% significance level. Additionally, BIG4 and TENURE show a weak negative relationship with ABNOR_ACCRUALS, suggesting that firm managers reduce accruals manipulation when external monitoring from BIG4 is high, but have the tendency to increase or decrease real activities manipulation due to limited scrutiny from auditors and regulators. The remaining firm-level and demographic control variables maintain their expected signs and levels of significance.

3.7. Robustness Checks

3.7.1. Alternative Measures of Real Activities

In this section, varying sensitivity analyses are conducted to provide support for the results. Different measures of real activities are examined, in line with previous studies (Kothari et al., 2016; Cohen and Zarowin, 2010). Further sensitivity analyses are also conducted using individual measures of real activities earnings management. Specifically, abnormal production costs (ABNOR_PCOST), abnormal discretionary expenses (ABNOR_DEXP) and abnormal cash flows (ABNOR_CASFO) are used as dependent variables and proxies for real activities earnings management. Cohen and Zarowin (2010) observe that aggregating these three individual variables to compute REALMGMT1 and REALMGMT2 might influence earnings and weaken the results. Table 3.13 provides the results for aggregated and individual measures of real activities earnings management.

Table 3.13: Religiosity, Legal Environment and Real Activities Measures

VARIABLE	RAELMGMT1	REALMGMT 2	ABNOR_ PCOST	ABNOR_ DEXP	ABNOR_ CASFO
REL	0.348***	0.049***	0.106***	0.240***	0.157***
	(3.240)	(3.396)	(2.680)	(3.200)	(2.580)
LEGAL	-0.210	-0.011	-0.008	-0.012	-0.010
	(-0.965	(-1.365)	(-1.142)	(-1.265)	(-1.423)
REL x LEGAL	-0.481	-0.087	-0.211**	-0.342	-0.152
	(-1.450)	(-1.478)	(-2.450)	(-1.060	(-1.350
SIZE	-0.544***	-0.556***	-0.110***	-0.072***	-0.182***
	(-11.660)	(-12.540)	(-3.500)	(-5.050)	(-8.090)
ANALYST_FOL	-0.012	-0.023	-0.023**	-0.036**	-0.017**
	(-0.770)	(-1.580)	(-2.100)	(-2.220)	(-2.280)
ROA	-0.951***	-0.395***	-0.029***	-0.056***	-0.030***
	(-3.141)	(-3.029)	(-3.470)	(-4.360)	(-3.620)
LEV	0.248*	0.055	0.045*	0.005	0.275***
	(1.820)	(0.430)	(1.750)	(0.040)	(4.190)
BIG4	-0.068	-0.059	-0.100	-0.107	-0.011
	(-1.040)	(-0.920)	(-0.230)	(-1.570)	(-0.360)
MBV	-0.146***	-0.100***	-0.94***	-0.051***	-0.122***
	(-10.150)	(-7.400)	(-9.490)	(-3.530)	(-7.770)
LOSS	0.052*	0.073**	0.014*	0.079**	0.025*
	(1.760)	(2.580)	(1.670)	(2.590)	(1.770)
OPERA_RISK	0.037***	0.041***	0.015**	0.008	0.031***
	(2.620)	(2.990)	(2.470)	(1.540)	(4.380)
RURAL	-0.024	-0.015	-0.021	-0.010	-0.012
	(-1.050)	(-0.720)	(-1.020)	(-0.620)	(-0.520)
BENCHMARK	-0.644*	-0.532	0.023	-.0775**	-0.028
	(-1.770)	(-1.550)	(0.920)	(-2.110)	(-0.160)
TENURE	-0.009	-0.002	-0.001	-0.026	-0..001
	(-0.510)	(-0.110)	(-0.100)	(-1.420)	(-0.111)
CHANGE_GDP	-0.012*	-0.007	-0.011***	-0.005	-0.006**
	(-1.910)	(-1.280)	(-2.590)	(-0.740)	(-2.060)
INVESTMENT	0.498*	0.147	0.077**	0.840***	-0.097***
	(1.940)	(0.600)	(1.960)	(3.200)	(9.670)
NOA	0.106**	0.169***	0.710**	0.226***	0.012
	(2.580)	(4.320)	(2.500)	(5.370)	(1.590)
CONSTANT	0.679	0.571	0.442	0.357	0.550
Demographic Control Variables	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	21,090	21,090	21,706	21,706	21,706
R-square (overall)	0.09	0.15	0.12	0.06	0.09
Breusch-Pagan	2497.65	2251.63	2247.58	2186.82	2132.47
P-Value	(0.7489)	(0.7193)	(0.6157)	(0.6113)	(0.6097)
Kolmogorov-Smirnov	435	237	333	549	135
P-Value	(0.4138)	(0.2181)	(0.3213)	(0.6123)	(0.1938)
Wooldridge Test	88.43	152.78	246.21	428.39	67.54
P-Value	(0.2378)	(0.2981)	(0.3346)	(0.5134)	(0.1938)

Notes: *,** and *** are used in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. In Table 3.13 we show the results of both aggregated and individual measures of real earnings

management (Cohen and Zarowin, 2010). Models 1, 2, 3, 4 and 5 are estimated using fixed effects regression; co-efficient estimates are shown above and t-statistics below in brackets.

The individual results of the association between religious social norms and abnormal production costs (ABNOR_PCOST), abnormal discretionary expenses (ABNOR_DEXP) and abnormal cash flows (ABNOR_CASH) are presented in columns 4 to 6. Columns 2 and 3 in Table 3.13 show the aggregated results for the measures of real activities earnings management, previously reported in Tables 3.11 and 3.12. Interestingly, the study finds evidence of a significant ($P \leq 0.003$) positive association between religiosity and the three individual measures of real activities. The results are consistent with the aggregated measures of real activities (REALMGMT1 and REALMGMT2), suggesting that because real activities earnings management is not subject to intense scrutiny from auditors and does not violate GAAP, managers in religious social norm environment deem it appropriate, for example, to reduce advertising expenditure and R&D expenses, delay payment of goods, reduce selling prices and give higher discounts to influence reported profits upwards or downwards. This is consistent with the findings of McGuire et al. (2012), who observe a positive relationship between real activities and the religiosity of the firms' environment. Similarly, the results also show that there is an insignificant negative relationship between legal environment and all proxies for real activities- based earnings management. The relationship between REL x LEGAL and the measures of real activities are also negatively insignificant. The results suggest that the interaction term between firms' legal environment and religious social norms do not affect real activities. Thus, firm managers' incentive to engage in real activities in a religious social norm environment is perhaps not affected by the litigation environment, because real activities are not illegal. Previous studies (McGuire et al., 2012; Dyreng et al., 2012) have observed the positive

relationship between REL and the two proxies of real activities, but failed to interact religiosity with the legal environment. This study supports the findings of McGuire et al. (2012), but for the first time new evidence is documented to show that the legal environment does not affect real activities but complement religious social norms of the firm's environment to mitigate accruals earnings management. Therefore, the findings are consistent with earlier studies that indicate that a firm's legal environment is related or not to earnings management practices (Behn et al., 2013; Haw et al., 2011; Callen et al., 2011; Leuz et al., 2003).

3.7.2. Alternative Measures of Discretionary Accruals

A further robustness test is conducted to estimate discretionary abnormal accruals using the working capital accruals defined in model (2). Therefore, in line with previous research (Behn et al., 2013; Dechow et al., 2012; Haw, Ho and Li, 2011; Xie et al., 2003), the study computes discretionary accruals using the modified Jones model and working capital accruals for each firm year observation and two digit SIC code and industry. Initially, only the religiosity (REL) of the firms' environment is included in model (6) and a significant negative relationship is observed between REL and abnormal accruals (ABNOR_ACC) using total accruals and working capital accruals estimated in the modified Jones model. Subsequently, the study includes only a measure of the legal environment (LEGAL) in model (6) and an insignificant negative relationship is observed between LEGAL and ABNOR_ACC. Again, only the interaction between REL and LEGAL is included in model (6) and a significant negative relationship is observed between the interactive term REL x LEGAL and ABNOR_ACC. Finally, the study includes all the variables in model (6).

Table 3.14 shows the results after including all the variables in model (6) and indicates that the relationship between REL, LEGAL, REL x LEGAL and ABNOR_ACC is negatively significant, supporting the earlier findings that the association between REL and ABNOR_ACC is still negative and significant at a confidence level of 95% when discretionary accruals are computed using working capital accruals in the modified Jones model. Similarly, the results indicate that the relationship between REL x LEGAL and ABNOR_ACC is significantly negative ($p < 0.001$) when discretionary accruals are computed using total accruals and working capital accruals in the modified Jones model. The co-efficient of LEGAL is examined, and a negative but an insignificant relationship is observed between LEGAL and ABNOR_ACC when total accruals and working capital accruals are used in the modified Jones model. The results therefore suggest that the legal environment complements religiosity in mitigating accruals manipulation. The inferences regarding religious social norms, legal environment and abnormal accruals for firms in the U.S remain the same. In additional analysis, the study augments both the Jones model and modified Jones model to include lagged return on assets (ROA). Previous studies (Dechow et al., 2012; Kothari et al., 2005) observe that the inclusion of past ROA attenuates misspecification but does not eliminate it. Interestingly, in both Jones models with lagged ROA, it is observed that the relationship between ABNOR_ACC and REL, REL x LEGAL is significantly negative ($p < 0.01$).

Table 3.14: Religiosity and Accrual-based Earnings Management Measures

VARIABLE	Modified-Jones Model (Total Accruals)	Modified-Jones Model (Working Capital Accruals)
REL	- 0.062**	-0.058**
	(-2.317)	(-2.254)
LEGAL	-0.015	-0.014
	(-1.520)	(-1.620)
REL x LEGAL	-0.183***	-0.187***
	(-3.612)	(-3.648)
SIZE	-0.067***	- 0.054***
	(-4.600)	(-3.460)
ANALYST_FOL	-0.004*	-0.043
	(-1.648)	(0.150)
ROA	-0.071***	-0.028***
	(-3.263)	(-4.460)
LEV	0.092***	0.023***
	(4.830)	(5.610)
BIG4	-0.011**	-0.009
	(-2.090)	(-0.770)
MBV	0.013***	0.023***
	(3.280)	(4.180)
LOSS	0.005	0.009*
	(1.140)	(1.670)
OPERA_RISK	0.014***	0.015***
	(3.290)	(2.940)
BENCHMARK	0.005	-0.007
	(1.530)	(-0.110)
TENURE	-0.034	-0.001
	(-0.630)	(-0.380)
CHANGE_GDP	-0.002	-0.002
	(-0.560)	(-1.610)
INVESTMENT	-0.008	-0.006
	(-0.040)	(-0.380)
NOA	-0.378***	0.038***
	(-9.830)	(5.190)
CONSTANT	0.024	0.051
Demographic Control Variables	Yes	Yes
Industry Fixed Effects	Yes	Yes
Observations	10,902	10,902
R-square (overall)	0.30	0.32
Breusch-Pagan	1428.67	2094.37
P-Value	(0.6861)	(0.7861)
Kolmogorov-Smirnov	687	597
P-Value	(0.6415)	(0.5608)
Wooldridge Test	115.69	95.76
P-Value	(0.3726)	(0.2871)

Notes: *,**and *** are used in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels; both models 1 and 2 are estimated using fixed effects regression. To compute abnormal discretional accruals, the modified Jones model is revised and total accruals (TAC) are replaced by working capital accruals (WC_ACRUALS), defined as earnings before extraordinary items plus depreciation and amortisation minus cash flows from operating activities (Dechow et al., 2012; Peasnell et al., 1999). Co-efficient estimates are shown above and t-statistics below in brackets.

3.7.3. High and Low Religious Areas

The study attempts further robustness analysis in high and low religious areas as the findings in Tables 3.9 to 3.12 do not reveal the extent to which the level (high or low) of religiosity in an area affects accrual-based and real activities earnings management practices. The study follows the method used in previous studies (McGuire et al., 2012; Callen et al., 2011) to break down the datasets into two samples, comprising high and low religious areas. Areas with above the median religiosity figure of 52% are defined in the sample as having high religiosity, and those below this figure are defined as low religiosity areas. As indicated by McGuire et al. (2012), the attitudes and behaviour of the people in an environment are influenced by its religiosity. Therefore, it is expected that areas with high religiosity scores will have a more significant influence on accrual-based earnings management practices than areas with low religiosity figures.

Table 3.15 presents the results of the analysis of the impact of high and low religious areas on earnings management. Two proxies for real activities and one proxy for accrual-based management are used in three separate regressions using model (6). Interestingly, a strong negative or positive association at the 1% significance level ($P< 0.01$) is observed between religiosity and accrual-based or real activities earnings management in high religiosity areas respectively. In the high religiosity areas, the inferences remain the same. From the results, the coefficients on both REL and REL x LEGAL are negative and significant for accrual-based earnings management. Consistent with previous results, the coefficient on REL is positive and significant for both measures of real activities earnings management. The coefficient on the interactive term REL x LEGAL is also negative, but not significantly related to real activities measures, suggesting that real activities in a religious social norms

environment are not illegal and firms are sued for fraud or fraudulent transactions but not real activities. Not surprisingly, it is noted that the associations between REL and ABNOR_ACC, and REALMGMT1 and REALMGMT2 in low religiosity areas is negatively or positively weak at the 10% significance level. This suggests and reinforces the findings that religious social norms in the firms' environment has an influence on both accruals-based and real activities earnings management, and that the effect is pronounced in a highly religious environment. The findings further suggest that the legal environment plays a mitigating role and complements religiosity in subduing accrual-based earnings management, but has no direct impact on real activities earnings management.

Table 3.15: High Religiosity Areas vs Low Religiosity Areas

Variables	ABNOR_ACC		REALMGMT1		REALMGMT2	
	HIGH	LOW	HIGH	LOW	HIGH	LOW
REL	-0.084**	-0.033*	0.269***	0.132*	0.080***	0.056*
	(-2.432)	(-1.740)	(3.261)	(1.774)	(3.221)	(1.750)
LEGAL	-0.034	-0.026	-0.020	-0.017	-0.031	-0.028
	(-1.289)	(-1.218)	(-1.314)	(-1.274)	(-1.199)	(-1.089)
REL x LEGAL	-0.195***	-0.072*	-0.354	-0.144	-0.178	-0.082
	(-5.458)	(-1.782)	(-1.374)	(-1.152)	(-1.360)	(-1.223)
SIZE	-0.051***	-0.024**	-0.514***	-0.102	0.524***	0.183*
	(-5.780)	(-2.280)	(-8.760)	(-1.010)	(9.490)	(1.900)
ANALYST_FOL	-0.005*	-0.001	-0.013	-0.026	-0.035*	-0.028
	(-1.730)	(-0.140)	(-0.640)	(-0.890)	(-1.800)	(-1.020)
ROA	-0.091***	-0.015***	-0.317***	-0.81**	-0.079***	-0.049***
	(-5.765)	(-2.610)	(-6.020)	(-2.160)	(-4.620)	(-3.790)
LEV	0.119***	0.045*	0.360**	0.060	0.185	0.200
	(4.920)	(1.870)	(2.250)	(0.210)	(1.220)	(0.740)
BIG4	-0.005	-0.016	-0.114	-0.111	-0.093	-0.127
	(-0.360)	(-0.790)	(-1.380)	(-1.060)	(-1.160)	(-1.230)
MBV	0.015***	0.013***	0.160***	0.118**	0.121***	0.058**
	(5.710)	(2.660)	(9.300)	(2.270)	(7.450)	(2.270)
LOSS	0.011**	0.009	0.039	0.008	0.046	0.050
	(1.980)	(0.990)	(1.070)	(0.160)	(1.340)	(1.030)
OPERA_RISK	0.014***	0.013***	0.054***	0.028	0.055***	0.050*
	(5.420)	(2.660)	(3.190)	(1.080)	(3.380)	(1.980)
BENCHMARK	0.045	0.016	-0.930**	-0.988	-0.982***	-0.409
	(0.760)	(0.120)	(-2.340)	(-1.380)	(-2.620)	(-0.610)
TENURE	-0.002	-0.006	-0.016	-0.037	-0.008	-0.034
	(-0.520)	(-1.060)	(-0.730)	(-1.200)	(-0.400)	(-1.140)
CHANGE_GDP	-0.001	-0.002	-0.007	-0.016	-0.004	-0.011
	(-0.840)	(-0.790)	(-0.940)	(-1.530)	(-0.650)	(-1.160)
INVESTMENT	-0.471***	-0.268***	0.793**	0.584	0.512*	0.825
	(-9.900)	(-3.420)	(2.510)	(1.360)	(1.720)	(0.220)
NOA	0.037***	0.018	0.021***	0.250**	0.102**	0.296***
	(4.770)	(1.250)	(3.400)	(2.090)	(2.120)	(3.820)
CONSTANT	0.518***	0.061***	0.335**	0.116*	0.180**	0.080**
Demo. Control Variables	Yes	Yes	Yes	Yes	Yes	Yes

Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	16,463	5,266	14,158	5,932	16,463	5,266
Adj. R-square	0.25	0.15	0.17	0.10	0.23	0.11
Breusch-Pagan	1428.67	1385.13	2287.72	2074.12	2132.47	2120.89
P-Value	(0.6861)	(0.6524)	(0.6152)	(0.6105)	(0.6097)	(0.6074)
Kolmogorov-Smirnov	234	145	137	114	208	121
P-Value	(0.3213)	(0.1847)	(0.2219)	(0.1364)	(0.2631)	(0.1737)
Wooldridge Test	51.47	48.65	35.36	12.86	24.35	84.96
P-Value	(0.2934)	(0.1857)	(0.2342)	(0.1787)	(0.2137)	(0.1628)

Notes: *,** and *** are used in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels; both models 1 and 2 are estimated using fixed effects regression. To compute abnormal discretional accruals, the modified Jones model is revised and total accruals (TAC) are replaced by working capital accruals (WC_ACRUALS), defined as earnings before extraordinary items plus depreciation and amortisation minus cash flows from operating activities (Dechow et al., 2012; Peasnell et al., 1999). Co-efficient estimates are shown above and t-statistics below in brackets.

3.7.4. Highest and Lowest Legal Environment States in the U.S.

To ensure that the results of the study are free from potential bias and do not rely on generalisation of state liability systems across several states and years, the twenty highest and lowest legal environment datasets are used, covering the study and sample period. Previous studies (Behn et al., 2013; Luez et al., 2003; La Porta et al., 1998) observe that a strong legal environment boosts investor confidence and mitigates accrual-based earnings management. Therefore, legal environment datasets are selected for highest and lowest twenty states listed in Table 3.1. The aim is to ensure that the findings are free from bias and are not influenced by the size of the legal environment. Interestingly, it is found that the results are consistent with the initial findings. In particular, the coefficient on LEGAL is negative and insignificantly related to ABNOR_ACC, REALMGMT1 and REALMGMT2. Separate regressions (model 6) are run using sub-samples of the highest and lowest legal environment states and the results are presented in Table 3.16. Interestingly, the coefficient on LEGAL is negative and shows no significant relationship

with ABNOR_ACC, REALMGMT1 or REALMGMT2. The study also re-examines the effect of the interactive term REL x LEGAL on ABNOR_ACC, REALMGMT1 and REALMGMT2 in both the highest and lowest legal environment states. As shown in Table 3.16, the coefficient on REL x LEGAL is negative and significantly ($p < 0.01$) related to ABNOR_ACC, suggesting that religiosity is induced by the firm's litigation environment to play an effective monitoring role to reduce accruals earnings management. Overall, the results confirm that religiosity plays a monitoring role and that firm legal environment complements religiosity in mitigating accrual-based earnings management, but real activities are unaffected by litigation environment, in line with prior studies (McGuire et al., 2012, Luez et al., 2003; La Porta et al., 1998)

Table 3.16: Legal Environment and Earnings Management in Twenty US States

Variables	ABNOR_ACC		REALMGMT1		REALMGMT2	
	MOST	LEAST	MOST	LEAST	MOST	LEAST
REL	-0.048** (-2.040)	-0.039** (-1.982)	0.236*** (2.932)	0.189*** (2.894)	0.058*** (3.020)	0.038** (2.240)
LEGAL	-0.044 (-1.133)	-0.013 (-0.180)	-0.019 (-1.363)	-0.013 (-1.174)	-0.060 (-1.221)	-0.051 (-1.102)
REL x LEGAL	-0.181*** (-3.418)	-0.134*** (-2.902)	-0.244 (-1.425)	-0.205 (-1.152)	-0.092 (-1.560)	-0.055 (-1.263)
SIZE	-0.055** (-2.460)	-0.022** (-2.278)	-0.201*** (-4.660)	-0.125** (-2.540)	- 0.050*** (-4.150)	- 0.033*** (-3.280)
ANALYST_FOL	-0.004 (-1.370)	-0.002 (-0.156)	-0.011 (-1.470)	-0.003 (-1.358)	-0.033** (-2.440)	-0.033** (-2.340)
ROA	-0.008** (-3.320)	-0.011** (-2.432)	-0.132*** (-3.232)	-0.82*** (-2.029)	-0.28*** (-3.510)	-0.11*** (-3.380)
LEV	0.015** (2.170)	0.041* (1.720)	0.248* (1.820)	0.055 (0.430)	0.059 (2.580)	0.020 (0.120)
BIG4	-0.020 (-1.460)	-0.014 (-0.585)	-0.068 (-1.040)	-0.059 (-0.920)	-0.082* (-2.730)	0.051** (1.680)
MBV	0.003 (1.150)	0.012** (2.450)	-0.46*** (-3.240)	-0.10*** (-2.400)	0.025*** (2.330)	0.014** (2.240)
LOSS	0.004** (2.170)	0.008 (0.860)	0.052* (1.760)	0.073** (2.580)	0.024* (1.730)	0.013* (1.650)
OPERA_RISK	0.010** (2.380)	0.011** (2.260)	0.037** (2.120)	0.041** (2.090)	0.003 (1.100)	0.002 (1.420)
BENCHMARK	0.007 (0.540)	0.014 (0.110)	-0.024 (-1.050)	-0.015 (-0.720)	0.028 (1.020)	-0.036* (-1.790)
TENURE	-0.001 (-0.360)	-0.005 (-1.120)	-0.144* (-1.820)	-0.132 (-1.430)	-0.007 (-0.060)	-0.002 (-0.520)
CHANGE_GDP	0.017** (2.040)	-0.002 (-0.784)	-0.009 (-0.510)	-0.002 (-0.110)	-0.013* (-1.760)	0.007** (1.690)
INVESTMENT	-0.192* (-3.770)	-0.054*** (-1.730)	-0.012* (-1.910)	-0.007 (-1.280)	-0.394*** (-3.620)	-0.169* (-1.670)
NOA	0.02***	0.016 (1.230)	0.192* (1.830)	0.120 (0.810)	0.055* (1.880)	0.023 (0.760)

	(3.970)					
CONSTANT	0.139	0.121	0.264	0.116	0.180	0.118
Demo. Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,463	5,388	5,986	5,532	6,463	5,388
Adj. R-square	0.25	0.15	0.17	0.10	0.23	0.11
Breusch-Pagan	1531.42	1298.19	2159.67	2079.82	2387.76	2257.89
P-Value	(0.7113)	(0.6754)	(0.6582)	(0.62185)	(0.6372)	(0.6245)
Kolmogorov-Smirnov	282	123	217	114	209	83
P-Value	(0.3437)	(0.2157)	(0.2239)	(0.1932)	(0.2419)	(0.1421)
Wooldridge Test	721.26	42.58	39.33	18.59	26.18	82.64
P-Value	(0.2845)	(0.1968)	(0.2342)	(0.1787)	(0.2137)	(0.1628)

Notes: *,** and *** are used in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels; both models 1 and 2 are estimated using fixed effects regression. To compute abnormal discretional accruals, the modified Jones model is revised and total accruals (TAC) is replaced by working capital accruals (WC_ACRUALS), defined as earnings before extraordinary items plus depreciation and amortisation minus cash flows from operating activities (Dechow et al., 2012; Peasnell et al., 1999). Co-efficient estimates are shown above and t-statistics below in brackets.

3.7.5. Religiosity and Legal Environment Interaction in Urban Areas

Further analysis is conducted to establish whether REL, LEGAL or REL x LEGAL have an influence on ABNOR_ACC, REALMGMT1 and REALMGMT2 in firms located in urban areas, and that the results are not driven by the higher earnings quality of the firms located in rural areas. Earlier studies (McGuire et al., 2012; Ucran, 2007) indicate that earnings quality is associated with rural firms and is strengthened when these firms are audited by the BIG4 auditors or have strong internal controls (Bayley and Taylor, 2007; Dechow et al., 2010). Rural and urban areas sub-samples are used to examine the impact of REL, LEGAL and REL x LEGAL on ABNOR_ACC, REALMGMT1 and REALMGMT2. The study follows the procedure in previous studies (McGuire et al., 2012; Dyreng 2012; Loughran and Schulz, 2005) and classifies MSA in each county with a population of over five million as urban areas and repeats the main test using the urban area sub-sample.

Table 3.17: Religiosity and Legal Environment Interaction in Urban Area Sub-sample

VARIABLE	ABNOR_ACC	REALMGMT1	REALMGMT2
REL	-0.044**	0.280***	0.092***
	(-2.370)	(2.810)	(3.170)
LEGAL	-0.037	-0.080	-0.082
	(-1.090)	(-1.250)	(-1.270)
REL x LEGAL	-0.137***	-0.075	-0.089
	(-3.090)	(-1.250)	(-1.270)
SIZE	0.057***	0.504***	0.513***
	(7.060)	(9.150)	(9.780)
ANALYST_FOL	-0.005*	-0.031	-0.043**
	(-1.670)	(-1.640)	(-2.440)
ROA	- 0.075***	-0.075***	-0.156***
	(-8.920)	(-6.510)	(-5.380)
LEV	0.118***	0.259	0.022
	(4.870)	(1.580)	(0.140)
BIG4	-0.020*	-0.072	0.091
	(-1.660)	(-0.930)	(1.180)
MBV	0.013***	0.125***	0.084***
	(5.150)	(7.330)	(5.240)
LOSS	0.004	0.064*	0.075**
	(0.770)	(1.830)	(2.250)
OPERA_RISK	0.015***	0.025	0.028*
	(5.780)	(1.500)	(1.720)
BENCHMARK	0.047	0.878**	-0.736*
	(0.740)	(-2.020)	(-1.790)
TENURE	-0.002	-0.021	-0.017
	(-0.560)	(-0.960)	(-0.850)
CHANGE_GDP	-0.001	-0.013*	-0.007
	(-0.040)	(-1.760)	(-0.990)
INVESTMENT	-0.392***	0.194	0.169
	(-8.570)	(0.620)	(0.570)
NOA	0.002***	0.165***	0.223***
	(2.970)	(3.380)	(4.760)
CONSTANT	1.368**	1.157**	1.131**
Demographic Cont. Variables	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
Observations	12,612	12,111	12,612
Adj. R-square (overall)	0.19	0.07	0.13
Breusch-Pagan	1347.42	2127.34	2108.52
P-Value	(0.6228)	(0.6427)	(0.6229)
Kolmogorov-Smirnov	612	582	586
P-Value	(0.6358)	(0.6184)	(0.6241)
Wooldridge Test	129.32	132.74	124.28
P-Value	(0.3664)	(0.4269)	(0.3212)

Notes: We use *,**,*** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels; we estimate both models 1 and 2 using fixed effects regression. To compute abnormal discretional accruals, we revise the modified Jones model and replace total accruals (TAC) by working capital accruals (WC_ACRUALS) defined as earnings before extraordinary items plus depreciation and amortisation minus cash flows from operating activities (Dechow et al., 2012; Peasnell et al., 1999). We show co-efficient estimates above and t-statistics below in brackets.

Table 3.17 presents the results of the analysis of the relationship between REL, LEGAL, REL x LEGAL and ABNOR_ACC, REALMGMT1 and REALMGMT2 for firms located in urban areas. Indeed, using only the urban area sub-sample, the conclusions remain the

same. It is found that the coefficient of REL is negative and significantly (at the 5% level) associated with ABNOR_ACC, but positive and significantly (at the 1% level) associated with REALMGMT and REALMGMT2. Similarly, the coefficient of REL x LEGAL is negative and significantly (at the 1% level) associated with ABNOR_ACC, and negative but insignificantly associated with REALMGMT and REALMGMT2. This suggests that the findings in respect of the association between REL, REL x LEGAL and ABNOR_ACC, REALMGMT1 and REALMGMT2 are not solely influenced by the high earnings quality associated with rural areas. The findings are robust and clearly demonstrate that the legal environment complements religiosity in curbing accruals manipulation, but weakens the positive impact of religiosity on real activities in the U.S or legal environment has no direct impact on real activities.

3.7.6. Religiosity, Legal Environment, Corporate Governance and Earnings Management

Previous studies (Cheng et al., 2016; Zalata and Roberts, 2015; Lin and Hwang, 2010; Harris and Raviv, 2008) indicate that strong corporate governance acts as a form of monitoring mechanism, controls devious managerial behaviour, and reduces information risk. Similarly, other studies (Xie et al., 2003; Peasnell et al., 2005) observe a negative association between board tenure, proportion of independent directors and accrual-based earnings management. Hossain et al., (2011) and Xie et al. (2003) observe that the relationship between board size, number of meetings and accrual-based earnings management is negative. Moreover, audit committees, number of meetings, financial expertise, CEO tenure and number of outside directors have been found to reduce earning management. The preceding analyses have demonstrated that the legal environment and

religious social norms curb accrual-based earnings management, but weaken the positive effect of religiosity on real activities or has no direct effect on managers' incentive to engage in real activities earnings management practices in a firm. Based on the previous literature, it is possible that where there is effective corporate governance, the impact of religion and legal environment on accrual- and real activities earnings management will be irrelevant or insignificant. On the other hand, the influence of firms' legal environment and religious social norms could complement the existing corporate governance mechanisms as a form of internal monitoring. The study tests the relationship by controlling for corporate governance variables and excludes the BIG4 auditors and auditor tenure from the original model to avoid multi-collinearity problems. In particular, board size (BODSIZE), number of independent directors (BODIND) and audit committees (AUCOM) are used as proxies for corporate governance. Secondly, the study relates and interacts governance variables with religiosity (REL x BODSIZE; REL x BODIND and REL x AUCOM) in the original model (6). Similar to Chapter 2, to avoid multicollinearity problems, a separate regression is run for each variable. First, only BODSIZE is included in the model; thereafter, BODINS and AUCOM. The same process is repeated for REL x BODSIZE, REL x BODIND and REL x AUCOM respectively. Finally, the study includes all the variables in the model, but the results appear very similar.

Table 3.18 present the initial results of the association between religiosity, legal environment, corporate governance variables and proxies for earnings management. Clearly, the co-efficient on both REL and REL x LEGAL are negative and significantly related to ABNOR_ACC, even after controlling for corporate governance variables in the model. A significantly negative relationship (at the 1% level, p-value = 0.003) is found

between REL x LEGAL and ABNOR_ACC. However, the study observes a positive relationship at the 5% significance level between REL and REALMGMT1, REALMGMT2. The coefficient on LEGAL is still negative but not significant. Thereafter, the study includes REL x BODSIZE, REL x BODIND and REL x AUCOM in the model and finds a significantly negative relationship at the 1% level, p-value = 0.001 between REL x BODSIZE, REL x BODIND and REL x AUCOM and ABNOR_ACC. The results suggest when a firm operates in a religious social norms environment, with a high proportion of independent directors, large board size and strong audit committee with some financial experts on the committee, the incentive to engage in accruals-based earnings management is reduced. This negative impact of religion on accruals manipulation behaviour is induced by the effectiveness of corporate governance mechanism such as; BODSIZE, BODIND and AUCOM. This finding is consistent with previous studies (Zalata and Robert, 2015; McGuire et al., 2012; Callen et al., 2011). The inferences remain the same and confirm that religiosity complements existing governance mechanisms in subduing accruals and real activities earnings management practices. The inclusion of corporate governance variables maintains the level of significance for the association between REL and ABNOR_ACC, but the coefficient and t-values change from -0.074 and -2.415 to -0.064 and -2.249 respectively. This suggests that REL mitigates ABNOR_ACC and that the results complement the existing corporate governance mechanisms. Therefore, the initial results are supported, in that there is a significantly negative association between REL and ABNOR_ACC at the 5% significance level. This study reports that firms' religious social norm environment complements existing governance mechanisms (e.g. BODSIZE, BODIND and AUCOM) to subdue ABNOR_ACC.

Table 3.18 : Religiosity and Corporate Governance Variable Interactions

VARIABLE	ABNOR_ACC	RAELMGMT1	REALMGMT2
REL	-0.064**	0.259**	0.040**
	(-2.249)	(2.408)	(2.390)
LEGAL	-0.014	-0.210	-0.012
	(-1.453)	(-0.965)	(-1.382)
REL x LEGAL	-0.184***	- 0.392	-0.078
	(-3.681)	(-1.360)	(-1.209)
BODSIZE	-0.031***	-0.024**	-0.094**
	(-2.120)	(-2.230)	(-2.020)
BODIND	-0.293***	-0.097**	-0.086**
	(-2.703)	(-2.420)	(-2.190)
AUCOM	-0.017**	-0.042**	-0.068
	(-2.420)	(-2.030)	(-1.449)
RELBODSIZE	-0.135***	-0.054**	-0.088**
	(-3.270)	(-2.130)	(-2.009)
RELBODIND	-0.076***	-0.087**	-0.016**
	(-3.868)	(-2.090)	(-1.980)
RELAUCOM	-0.275***	-0.066**	-0.075
	(-3.346)	(-2.040)	(-1.580)
SIZE	-0.034**	0.055***	0.055***
	(-2.190)	(3.660)	(3.500)
ANALYST_FOL	-0.066	-0.013	-0.024
	(-1.480)	(-0.810)	(-1.570)
ROA	-0.004***	-0.095***	-0.039***
	(-4.690)	(-8.360)	(-7.180)
LEV	0.170	0.252	0.058
	(1.350)	(1.550)	(0.440)
MBV	0.093	0.252	0.396*
	(1.550)	(1.110)	(1.920)
LOSS	0.013***	0.053**	0.099***
	(2.600)	(2.470)	(3.360)
OPERA_RISK	0.005**	0.039	0.073***
	(2.170)	(1.600)	(2.590)
BENCHMARK	0.014	-0.637	0.042
	(1.480)	(-1.630)	(1.070)
CHANGE_GDP	0.035	-0.012	-0.529
	(0.640)	(-0.960)	(-1.550)
INVESTMENT	-0.004	0.485	0.002
	(-0.420)	(0.890)	(0.120)
NOA	0.377*	0.108***	0.008
	(1.820)	(2.620)	(1.320)
CONSTANT	1.538	1.479	1.422
Demographic Control Variables	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
Observations	21,729	21,090	21,090
R-square (overall)	0.29	0.08	0.13
Breusch-Pagan	4524.43	5273.25	5104.52
P-Value	(0.7245)	(0.6718)	(0.6497)
Kolmogorov-Smirnov	614	587	593
P-Value	(0.6362)	(0.6186)	(0.6254)
Wooldridge Test	137.18	135.52	121.37
P-Value	(0.3681)	(0.4272)	(0.3208)

Notes: We use *,**,*** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels; we estimate both models 1 and 2 using fixed effects regression. To compute abnormal discretional accruals, we revise the modified Jones model and replace total accruals (TAC) by working capital accruals (WC_ACRUALS) defined as earnings before extraordinary

items plus depreciation and amortisation minus cash flows from operating activities (Dechow et al., 2012; Peasnell et al., 1999). We show co-efficient estimates above and t-statistics below in brackets.

Once more, the inferences remain the same for real activities earnings management. In columns 3 and 4 of Table 3.18, there is a significantly ($P < 0.05$) positive association between REL, REALMGMT1 and REALMGMT2. The coefficient and t-values without governance variables (Table 3.10) for REALMGMT1 decrease from 0.273 to 0.259 and 3.287 to 2.408. Similarly, the coefficient and t-values without governance variables for REALMGMT2 fall from 0.057 to 0.040 and 3.315 to 2.390 respectively. Even though corporate governance mitigates earnings management, with real-activities the impact becomes relatively less pronounced.

In addition, a negative association is observed between the governance variables (BODSIZE, BODIND and AUCOM) and measures of real earnings management, at the level of 5% ($p < 0.05$). It is also found that the results show a significantly negative association at levels of 1% or 5% between RELBODSIZE, RELBODIND, RELAUCOM and REALMGMT1, REALMGNT2. This finding indicates that the joint effect of religious social norms environment and corporate governance mechanism in an organisation play a mitigating role in both accruals and real activities earnings management. That is, in a religious social norm environment with high proportion of independent directors, large board size and strong audit committee, the extent of real activities are minimised, especially, when such activities will compromise shareholders interest or minimize shareholder value. Again, the results indicate that the existing governance mechanism becomes more effective in mitigating managerial opportunistic behaviour especially in a religious social norm environment. This result is consistent with Haw et al., (2011) and

McGuire et al., (2012) findings. Indeed, the results show that the religiosity of the firms' environment has the potential to shape the attitudes and behaviour of firms' managers, even when there is a strong corporate governance mechanism in operation. On the other hand, it is demonstrated that religious social norms can serve as another form of monitoring for stakeholders and complement the existing legal environment or governance mechanisms instituted by management to curb accruals manipulation (Ayers et al., 2011; Burns et al., 2010). Overall, the results demonstrate that religious social norms curb accrual-based earnings management, but religious social norm environment is positively related to real-activities based earnings management. However, the positive effect of religiosity on real activities is weakened by the firms' legal environment and corporate governance mechanism.

3.8. Conclusions

The study has examined the impact of religiosity and legal environment, and the interaction between these, on accrual-based and real activities-based earnings management in the U.S. Previous studies (Kim and Park, 2014; Donelson et al., 2016; McGuire et al., 2012) provide evidence that religious social norms in the firms' environment influence accruals-based and real activities earnings management. Several studies (Cheng et al., 2016; Zalata and Roberts, 2015; Lin and Hwang, 2010; Harris and Raviv, 2008) also report that a firm's corporate governance mechanism subdues earnings management practices. This study builds on previous ones (McGuire et al., 2012; Dyreng et al., 2012) to establish the association between religiosity, legal environment and earnings management practices. It also examines the interactive effect of legal environment, governance variables and religiosity, using county-level religiosity datasets from the ARDA database between 2000 and 2010. The findings support those of previous studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012), and it is shown that religiosity is still negative and significantly associated with accrual-based earnings management, but positive and significantly associated with two measures of real activities earnings management for firms headquartered in highly religious social norms environments in the U.S. For the first time, religiosity is interacted with the firms' legal environment to examine their impact on accrual-based and real activities earnings management. This study provides the first time evidence to complement the earnings management literature and shows that firms' legal environment complements religiosity in mitigating accrual-based earnings management practices. Also for the first time, evidence is documented to show that the positive impact of religiosity on real activities is subdued by the legal environment. Therefore, the positive relationship between religiosity and real activities based earnings management can no

longer be supported or demonstrated. The study documents evidence consistent with previous studies (Zalata and Roberts, 2015; Lin and Hwang, 2010; Harris and Raviv, 2008) and shows that the presence of good corporate governance mechanism in a firm mitigates accrual-based earnings management practices and that the negative impact is much more pronounced in a religious social norm environment. This also suggests that religiosity complements existing governance mechanisms to subdue accrual-based earnings management practices. However, the study finds that the positive impact of religiosity on real activities becomes less effective when religiosity interacts with the legal environment or corporate governance variables. These findings are consistent with those of McGuire et al. (2012), who indicate that real activities are positively related to the religiosity of the firms' environment; however, McGuire et al. (2012) did not interact religiosity with the legal environment or corporate governance.

The study contributes to the literature on accrual-based and real activities earnings management in three ways. First, it reports that the interaction between religiosity and the legal environment has a significant negative effect on accrual-based earnings management. This is an important contribution to knowledge and literature on accrual-based earnings management. Second, the study shows that firms' legal environment and good corporate governance subdue the positive impact of religiosity on real activities earnings management reported by earlier studies (McGuire et al., 2012; Dyreng et al., 2012). However, the interactive term between religiosity and governance variables plays a monitoring role in subduing accrual-based earnings management. Thus, the findings extend the research that examines the relationship between accrual-based and real activities earnings management and corporate governance, and documents evidence that religiosity can complement

corporate governance to serve as a form of internal monitoring to mitigate accrual-based earnings manipulation by firm managers.

Third, the study supports the findings of previous studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012; Grullon et al., 2010) and provides additional evidence that even with different measures, models and estimations for accrual-based and real activities earnings management, religiosity is negatively or positively associated with these methods. In addition, it is shown that religiosity impacts on firms in rural and high religious areas than urban and low religious areas. However, when religious social norms of the firms' environment interact with firms' legal environment, managers' incentives to engage in real activities are reduced, probably because of fear of court action, legal suits or loss of reputation. In conclusion, it is found that religious social norms shape attitudes and beliefs and influence management decision-making, especially for firms headquartered in rural and highly religious areas, but that firms' legal environment plays a complementary role in mitigating earnings management practices.

The limitation of the study is that it uses the religious social norms of the firms' environment, therefore, future studies should consider interviewing management and staff to establish their respective religious backgrounds. Whilst this method will provide primary religious data sources for the study, it is very sensitive information to collect, and very costly and time- consuming to interview individual managers across several firms in the U.S. Moreover, individual managers are not open nowadays about their religious position; consequently, previous studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012; Grullon et al., 2010) have relied on religious databases for their analysis.

Another limitation is the legal environment data. Although firm managers were interviewed and data collected from sources by Harris Polls, the sample size was small and could affect the results of the analysis. It is admitted that this limitation could influence the results and therefore future studies should consider a larger sample size. One way to improve the overall sample is to widen the scope of respondents by the interviewers; for example, Harris Polls could contact as many managers, employees and shareholders as possible who are connected to the sampled firms. In addition, this study did not capture the national cultural differences across U.S. states. This is likely to be a limitation, as these differences affect due diligence, influence firms' cost of equity (Gray et al., 2013) and foreign direct investments (Kogut and Singh, 1998). Cultural differences can also affect the quality of financial information (Roth and O'Donnell, 1996) and cultural distant affects the shareholder wealth of the acquiring firm (Angwin, 2001). This study did not have access to state by state cultural databases. Future research should establish U.S. state by state cultural variables (if any) to assess their impact on both accrual-based and real activities earnings management. Notwithstanding, the results and the findings from the study are useful for regulators, external monitors and stakeholders to help create value for shareholders.

Appendix B

Table B1: Sample Selection Procedures and Derivation

A: Description (Sample Period: 2002-2015)

Initial Sample: Firm year observations with financial data	172,619
Exclude: Financial services companies (SIC Codes 60-69)	(51,251)
Exclude: Firms with missing financial information	(43,883)
Exclude: Observations with fewer than 8 firms year observations in each SIC/year combination	(28,117)
Exclude: Firms with revenue less than $1million	(27,639)
Final usable sample	21,729
Number of unique firms = 1,416	

Table B2: Classification by Year and Industry

SIC	Industry	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
10	Metal Mining	8	11	13	13	13	15	17	15	14	16	19	17	16	11	127
13	Oil & Gas	66	68	71	72	70	68	70	67	71	68	72	69	73	68	631
20	Food & Related Products	23	25	29	33	35	36	39	42	45	43	41	44	47	25	353
22	Textile & Printing Products	31	33	37	41	43	44	47	51	54	52	49	53	56	33	437
27	Printing & Publishing	18	21	19	19	19	17	15	14	14	15	17	16	16	21	165
28	Chemicals & Allied Products	103	145	148	137	136	128	126	124	112	125	128	126	114	145	1,173
34	Primary Metal Products	80	96	93	84	81	79	77	75	76	76	79	77	78	96	751
35	Industrial Machinery & Equipment	85	113	102	103	100	97	97	98	95	99	99	100	97	113	909
36	Electronic Equipment	119	180	189	179	168	160	157	146	139	147	159	148	141	180	1,465
37	Transportation Equipment	29	40	43	46	46	45	45	44	45	45	47	46	47	40	393
38	Instruments & Related Products	135	195	196	183	173	160	153	145	132	146	155	147	134	195	1,509
48	Communications	39	36	39	35	32	31	29	27	25	28	31	29	27	36	303
49	Electricity, Gas & Sanitary Services	11	21	21	21	19	20	19	15	15	16	21	17	17	21	173

50	Wholesale Trade - Durables	123	164	151	141	135	134	131	125	120	126	133	127	122	164	1,242
73	Business Services	96	130	144	116	104	98	92	83	87	84	94	85	89	130	963
79	Amusement & Recreation	8	12	12	10	10	10	10	12	12	13	12	14	14	12	107
80	Health Services	17	23	25	24	24	24	24	20	16	21	26	22	18	23	211
87	Eng. & Management Services	24	29	30	26	23	20	19	15	15	16	21	17	17	29	213
	Total	1372	1679	1719	1640	1588	1543	1524	1475	1444	1493	1560	1511	1480	1699	**21,729**

Table B3: Variance Inflation Factor (VIF) and Tolerance Levels (TOL)

VARIABLES	ABNOR_ACC			REALMGMT1			REALMGMT2		
	Co-eff / t-value	TOL	VIF	Co-eff / t-value	TOL	VIF	Co-eff / t-value	TOL	VIF
REL	-0.074 (-2.415)	0.41	2.46	0.259** (2.408)	0.42	2.40	0.040** (2.390)	0.40	2.50
LEGAL	-0.004 (-1.452)	0.38	2.66	-0.210 (-0.965)	0.38	2.60	-0.012 (-1.382)	0.38	2.62
REL x LEGAL	-0.165 (-1.387)	0.35	2.86	- 0.392 (-1.360)	0.36	2.80	-0.078 (-1.209)	0.36	2.77
SIZE	-0.065*** (-9.287)	0.58	1.71	0.055*** (3.660)	0.61	1.65	0.055*** (3.500)	0.60	1.67
ANALYST_FOL	-0.005* (-1.741)	0.93	1.07	-0.013 (-0.810)	0.99	1.01	-0.024 (-1.570)	0.97	1.03
ROA	-0.125*** (-3.016)	0.64	1.57	-0.095*** (-8.360)	0.67	1.50	-0.039*** (-7.180)	0.66	1.52
LEV	0.034*** (3.875)	0.74	1.36	0.252 (1.550)	0.78	1.29	0.058 (0.440)	0.75	1.33
BIG4	-0.052** (-2.250)	0.88	1.14	-0.072 (-0.930)	0.93	1.07	-0.072 (-0.930)	0.90	1.11
MBV	0.016*** (6.036)	0.78	1.28	0.252 (1.110)	0.83	1.21	0.396* (1.920)	0.80	1.25
LOSS	0.085 (1.175)	0.65	1.53	0.053** (2.470)	0.68	1.46	0.099*** (3.360)	0.67	1.50
OPERA_RISK	0.022*** (3.573)	0.90	1.11	0.039 (1.600)	0.96	1.04	0.073*** (2.590)	0.93	1.08
RURAL	0.007 (1.456)	0.58	1.71	0.007 (1.456)	0.61	1.65	0.007 (1.456)	0.60	1.67
BENCHMARK	0.027 (0.754)	0.56	1.77	0.006 (1.387)	0.59	1.70	0.004 (1.408)	0.57	1.74
TENURE	-0.009 (-0.493)	0.79	1.27	-0.637 (-1.530)	0.83	1.20	-0.067 (-1.470)	0.81	1.24
CHANGE_GDP	-0.008 (-0.754)	0.82	1.22	-0.012 (-0.960)	0.87	1.15	-0.529 (-1.550)	0.84	1.19
INVESTMENT	-0.065** (-2.118)	0.87	1.15	0.485 (0.890)	0.93	1.08	0.002 (0.120)	0.94	1.06

NOA	0.040*** (4.478)	0.53	1.87	0.108*** (2.620)	0.56	1.80	0.008 (1.320)	0.56	1.78
BODSIZE	-0.031*** (-2.120)	0.60	1.67	-0.024** (-2.230)	0.63	1.60	-0.094** (-2.020)	0.63	1.58
BODIND	-0.293*** (-2.703)	0.64	1.57	-0.097** (-2.420)	0.67	1.50	-0.086** (-2.190)	0.68	1.48
AUCOM	0.017** (-2.420)	0.62	1.62	-0.042** (-2.030)	0.65	1.55	-0.068 (-1.449)	0.65	1.53
RELBODSIZE	-0.135*** (-3.270)	0.51	1.97	-0.054** (-2.130)	0.53	1.90	-0.088** (-2.009)	0.53	1.88
RELBODIND	-0.076*** (-3.868)	0.48	2.07	-0.087** (-2.090)	0.50	2.00	-0.016** (-1.980)	0.51	1.97
RELAUCOM	-0.275*** (-3.346)	0.42	2.37	-0.066** (-2.040)	0.43	2.30	-0.075 (-1.580)	0.44	2.27
POPN	-0.408 (-1.478)	0.31	3.20	-0.408 (-1.478)	0.29	3.40	-0.408 (-1.478)	0.30	3.37
MINORITY	-0.018 (-1.478)	0.43	2.34	-0.016 (-1.407)	0.43	2.32	-0.012 (-1.308)	0.44	2.29
EDUC	-0.042*** (-3.478)	0.49	2.04	-0.035*** (-2.821)	0.50	2.02	-0.034** (-2.538)	0.49	2.04
INCOME	-0.142** (-2.478)	0.50	1.99	-0.028* (-1.778)	0.51	1.97	-0.012** (-2.215)	0.50	1.99
AGE	0.072*** (4.478)	0.52	1.91	0.038** (2.198)	0.53	1.89	0.043*** (3.104)	0.52	1.91
POLITICAL	0.004** (2.175)	0.55	1.82	0.006 (0.907)	0.56	1.80	0.003* (1.809)	0.55	1.82
Observations	21,279			21,090			21,090		
Adjusted R^2	0.33			0.12			0.16		
F-Value	26.17***			35.64***			23.89***		

Notes: All variables are defined in Table 3.1b. The study uses *,**and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The co-efficient estimates are shown above and the t-statistics below in brackets. The Variance Inflation Factor (VIF) and Tolerance Level (TOL) are respectively shown for the three independent variables. Full discussion of the VIF and TOL are provided in the study.

Chapter 4: The Impact of Countrywide Religiosity, National Culture and Legal Environment on Classification Shifting- Global Evidence

4.1. Introduction

Research on accrual-based and real activities earnings management is diverse and recently attempts have been made in the U.S. to examine their association with the religious social norms of the firms' environment (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012). This study goes a step further, as it is the first to explore the association between countrywide religiosity, countrywide culture, legal environment and classification shifting. Specifically, it provides new international evidence on the joint effect of the legal environment and countrywide religiosity, and legal environment and national dimensions of cultural perspectives on classification shifting in 63 countries. Indeed, the evidence in previous literature demonstrates that U.S. firms engage in classification shifting, accrual-based and real activities earnings management (Jarvinen and Myllymaki, 2016; Kothari et al., 2016; Zalata & Roberts, 2015; Fan et al., 2010; Cohen and Zarowin, 2010; McVay, 2006; Rowchoudhury, 2006). Surprisingly, only a few studies have provided evidence of classification shifting in an international setting. For instance, Behn et al. (2013) examine the relationship between classification shifting, analyst following and investor protection in 41 countries and observe that it decreases when analysts follow firms and investor protection is strong. Haw et al. (2011) also indicate that in East Asia, code law countries are associated with classification shifting behaviour, but that a lower incidence of this is seen amongst countries with strong legal institutions. Interestingly, in relation to the joint effect of legal environment and religiosity and legal environment and national culture on

classification shifting, no such study exists in the literature. The literature has, however, investigated the impact of religiosity on accrual-based and real activities earnings management (McGuire et al., 2012; Dyreng et al., 2012). For example, McGuire et al. (2012) find a negative relationship between religiosity and accrual–based earnings management. Similarly, Callen et al. (2011) explore the relationship between culture and accrual-based earnings management in 49 countries. They find that different variables of Hofstede's (1980) cultural dimensions, for example, individualism and uncertainty avoidance, are either positively or negatively related to accrual manipulation. In a related study, Desender et al. (2007) observe that high individualism and egalitarianism are associated with low accrual- or real activities earnings manipulation.

This study extends the earnings management literature and broadens the international evidence of classification shifting. It investigates classification shifting in 63 countries in relation to the joint effect of legal environment and religiosity as well as legal environment and national culture, as their impact on classification shifting in an international setting is missing from the earnings management literature. Previous studies on religiosity and accrual-based earnings management in an international setting find that religious affiliation and degree of religiosity do not influence this type of earnings management (Callen et al., 2011). Callen et al. (2011) indicate further that religious adherents do not view earnings management as devious managerial practice, like tax evasion, but it's a positive approach to signal firm performance. However, this finding contradicts earlier studies in the U.S. (McGuire et al., 2012; Dyreng et al., 2012), which observe a negative association between religiosity and accrual-based earnings management and a positive relationship between religiosity and real activities earnings management.

In addition, this study investigates the extent to which earnings management through the misclassification of core expenses into special items is influenced by national culture. The effect of culture on classification shifting has not been examined in the earnings management literature. Specifically, the literature has failed to document evidence of the influence of national culture on classification shifting. Stulz and Williamson (2003) observe that culture influences countrywide values, legal systems and institutions, as well as economic resource allocation. In a related study, Fan, Rui and Zhao (2008) find that corporate financing choices are shaped by culture, industry and a country's institutional factors. Recently, Ahern, Daminelli and Fracassi (2015) find that national cultural dimensions of individualism, trust and hierarchy affect financing decisions, mergers and acquisitions. Other studies indicate that culture mediates tax evasion and accrual-based earnings management (Tsakumis, Curatola and Porcano; 2007; Richardson, 2008). These studies observe a negative association between accrual-based earnings management and Hofstede's (1980) culture dimension of individualism, but a positive relationship between uncertainty avoidance and accrual manipulation. In addition, Li et al., (2013) find that the national culture of individualism is positively related to corporate risk-taking, whereas uncertainty avoidance is negatively associated with it. To provide further evidence, this study extends international evidence of research on earnings management; specifically, to examine the effect of national culture, as well as the joint effect of legal environment and national culture, on classification shifting in an international setting.

Thirdly, the study examines the influence of legal enforcement or environment in reducing the misclassification of core expenses into special items. Empirical evidence indicates that the legal environment has a negative impact on accrual-based earnings management (Leuz

et al., 2003). However, Callen et al. (2011) observe that a country's legal environment or enforcement is mediated by culture, and therefore Leuz et al.'s (2003) findings that the legal environment is negatively related to earnings management can no longer be supported. In a related study, Haw et al. (2011) find that well-functioning legal institutions and the appointment of external auditors mitigate classification shifting behaviour. This finding substantiates the observation by Francis and Wang (2008), who observe that a country's legal environment affects auditing practices. Recently, Behn et al. (2013) have found evidence of expenses misclassification in both weak and strong investor protection countries, with greater evidence of misclassification occurring in countries with weak protection. To extend the investigation further, this study also interacts religiosity and legal environment, as well as culture and legal environment, to assess their impact on classification shifting in an international setting.

The study collects financial data from the Compustat Global Database to estimate abnormal core earnings and determine the extent of classification shifting. The full sample consists of 908,125 firm-year observations for the period between 2000 and 2015 across 117 countries. In line with previous studies (Behn et al., 2013), a minimum of 10 firm-year-observations are required to estimate abnormal core earnings; consequently, 55 countries were deleted because of insufficient firm-year observations and missing financial data. The final datasets consisted of 63 countries and 254,916 firm-year observations. The study divides the countries into three headings: developed, emerging and developing, in line with the International Monetary Fund (IMF) grouping. In addition, the study obtains countrywide measures of culture from the updated Hofstede (1980, 1991), as developed by Tang and Koveos (2008), and the legal environment scores were collected from the

International Country Risk Guide (ICRG), in line with previous research (Leuz et al., 2003; La Porta et al., 1998). The ICRG employs 22 variables to measure risk in three main areas: political, financial and economic; however, a separate index is created for each subcategory.

Several important findings are reported. First, it is found that expenses misclassification occurs in developed, emerging and developing countries and it's not limited to the U.S. or developed countries. Secondly, consistent with previous earnings management studies in the U.S. (McGuire et al. 2012), the study finds that religiosity reduces managers' classification shifting behaviour, but that the negative impact is more acute in developing countries than emerging and developed ones. Thirdly, it is found that the legal environment mitigates expense misclassification in both developed and emerging countries, but that the negative effect is insignificant in developing ones. In addition, the study finds that cultural dimensions of individualism and long-term orientation play a monitoring role in reducing expense misclassification in developed and emerging economies, but that power distance, masculinity and uncertain avoidance motivate firm managers' classification shifting behaviour in all three types of countries. On the contrary, a positive association is found between classification shifting, individualism and long-term orientation in developing countries, suggesting that these countries are short-term result-oriented and collectivist.

Furthermore, the study examines the interactive terms between countrywide religiosity and legal environment, legal environment and individual dimensions of national culture, on classification shifting. It is found that the interactive term between religiosity and legal environment plays a complementary role in mitigating classification shifting and that the negative impact is much more pronounced in developed countries than emerging or

developing ones. Finally, the study finds that the legal environment weakens the positive effect of power distance, masculinity and uncertainty avoidance on classification shifting in all three classifications of countries. In fact, the positive association between individualism, long-term orientation and classification shifting in developing countries can no longer be demonstrated when the legal environment interact with individual dimensions of national culture.

In the additional sensitivity tests, several issues related to research design are addressed. Initially, the study re-estimates unexpected core earnings using different expectation models in order to avoid potential bias (Fan et al., 2010; McVay, 2006, 2008). Thereafter, countries with large or insignificant firm year observations are excluded and the datasets are divided into high or low religiosity countries to assess their impact on classification shifting. In summary, evidence of classification shifting is found in developed, emerging and developing countries. The monitoring role of countrywide religiosity, legal environment and individual cultural dimensions in mitigating such devious financial reporting behaviour is documented in this study.

The chapter proceeds as follows. Section 4.2 presents the literature and develops the hypotheses, section 4.3 explains the research design and discusses the empirical methodology, and section 4.4 describes the data, sample selection and descriptive statistics. Section 4.5 discusses the empirical results, while Section 4.6 presents several robustness checks and section 4.7 provides the conclusion.

4.2. Literature Review and Hypothesis Development

Three interrelated elements of the literature are reviewed. First, McGuire et al. (2012) examine the association between religious social norms and accrual-based earnings management and find that firms located in areas with lower levels of religiosity or religious adherents have incentives to engage in this type of earnings management. Second, in a cross-country study Callen et al. (2011) find no relationship between religious social norms and earnings management, but observe that a country's culture has negative effect on accrual-based earnings management. Thirdly, in another cross-country study Leuz et al. (2003) observe that accrual-based earnings management is positively associated with firms in countries where there is weak legal enforcement, weak investor protection, less developed equity markets, and concentrated ownership structures. In a related study, Kedia and Rajgopal (2011) examine the relationship between financial misreporting and the distance between corporate headquarters and SEC offices. They observe a higher incidence of earnings misstatements by firms located in areas far away from local SEC offices. In addition, Dyreng et al. (2014) examine the relationship between earnings management and weak rule of law and find that foreign subsidiaries in countries with a weaker rule of law have more foreign earnings management. Recently, Chiu et al. (2013) have observed that firms engage in earnings management when top management working for the firm are also working for another firm that is engaged in this practice.

There are several gaps in the literature that make this study relevant. First, no study has established the association between religious social norms and classification shifting in an international setting. Second, no study has examined the effects of national culture on classification shifting. Third, there is no study that has attempted the joint impact of religion

and legal environment, culture and legal environment on classification shifting using international evidence. This study addresses these gaps by studying the relationship between countrywide religious social norms, national culture, legal environment and classification shifting. Classification shifting, unlike accrual-based and real activities earnings management, does not involve the recognition or measurement of income statement items, but involves the shifting of core expenses into non-recurring ones (McVay, 2006). Specifically, core earnings are inflated instead of the bottom line net income through the misclassification of recurring items into non-recurring ones. Previous studies (Zalata and Roberts, 2015; Behn et al., 2013; Athanasakou et al., 2009; McVay, 2006) indicate that non-recurring expenses are by definition infrequent or transitory; consequently, financial statement users are unable to understand their nature and effect on income statements. Indeed, Bhattacharya et al. (2007) and Bradshaw & Sloan (2002) corroborate this and observe that managers might be motivated to shift core expenses into non-recurring items in order to inflate their core earnings. Previous studies (Barua et al., 2010; Fan et al., 2010; Athanasakou et al., 2009; McVay, 2006) also document that misclassification of recurring expenses into non-recurring ones is preferred to accrual-based and real activities earnings management methods because it does not affect future earnings as there are no accruals reversals in the following periods or lost revenue from forgone opportunities. Moreover, it does not change GAAP net income, thus making it less attractive for auditors and external regulators to subject the financial statements to thorough scrutiny (Zalata and Roberts, 2015; Behn et al., 2013; Athanasakou et al., 2009; McVay, 2006). Limited attention is paid to classification shifting in the earnings management literature because previous studies have mainly considered accrual-based and real-activities earnings management. The former involves managers' incentive to 'borrow' past and future earnings to improve the current

period's reported earnings or financial performance (Kothari et al., 2016; Behn et al; 2013). For real-activities earnings management, previous research (Jarvinen and Myllymaki, 2016; McGuire et al., 2012; Cohen and Zarowin, 2008; Roychowdhury, 2006; Graham et al., 2005; Ewert and Wagenhofer, 2005) indicate that the amount of revenue is influenced by adjusting discretionary expenses to meet current earnings targets, and that this is achieved through the acceleration of sales to customers, over-production to reduce the cost of sales, delaying or cutting down costs such as repairs and maintenance and advertising costs, as well as research and development expenses.

4.2.1. Classification Shifting Studies in the U.S.

The few studies on classification shifting in the U.S. have observed that managers are involved in core expenses misclassification to meet or beat pre-determined earnings benchmarks or analyst forecasts (Barua et al., 2010; Fan et al., 2010; McVay, 2006). These studies argue that classification shifting is consistent across firms and devoid of auditor or regulatory scrutiny. For example, McVay (2006) observe that core expenses are misclassified as special items to increase core earnings since investment decisions in the U.S. are influenced by the level of these earnings. Fan et al. (2010) investigate quarterly financial results of U.S. firms and report that in the U.S. classification shifting occurs mostly in the fourth quarter, when the incentive to manage earnings is greater, when accrual earnings manipulation is inhibited, and there is the need to meet quarterly earnings benchmarks. Similarly, Burgstahler et al. (2002, 2006) study the effect of special items on future earnings and report that firms use these to speed up the recognition of future expenses into the current period. They find that income-decreasing special items serve as an "inter-

period transfer" device. In contrast, Cready, Lopez and Sisneros (2012) extend the analysis of previous studies and find that earnings increase in post-special item quarters beyond the four quarters considered by Burgstahler et al. (2002, 2006). They observe that future earnings increase beyond 16 quarters and that the effects are more remarkable in restructuring charges than for asset write downs or impairment charges. In addition, Bradshaw and Sloan (2002) conducted a study in the U.S. capital markets and observe that investors are interested in core earnings figures, thus giving incentives for managers to manipulate these earnings. However, Leuz, Nanda and Wysocki (2003) indicate that firms in weak investor protection countries source funds from families, private financiers and banks and therefore accounting information is prepared with minimal levels of disclosure and transparency. They observe that accrual-based earnings management is associated with firms in weak investor protection countries, but incentives to manage core earnings through the misclassification of core expenses is difficult to predict. In contrast, Athanasakou et al. (2009) find that in the UK firms are more likely to misclassify core expenses into non-recurring ones than to engage in real activities or manage accrual transactions to meet analyst benchmarks or expectations. In a related study, Zalata and Roberts (2015) report that the ability to deliberately misclassify core expenses to inflate core earnings is not homogeneous across firms and that internal governance mechanisms could mitigate classification shifting. Furthermore, previous studies (Ali and Zhang, 2015; Strong and Meyer, 1987; Elliot and Shaw, 1998; Pourciau, 1993) observe a relationship between CEO tenure and earnings management. These studies document evidence that new CEOs are likely to misclassify or overstate the expenses/losses of their firms in the first year of service to discredit the previous CEOs in order to take credit for the resulting higher profits in subsequent years.

4.2.2. Cross-Country Classification Shifting Studies

Interestingly, while classification shifting is prevalent among firms in the U.S., as evidenced by previous studies (Barua et al., 2010; Fan et al., 2010; McVay, 2006), only two studies have investigated classification shifting in an international setting. For example, Haw et al. (2011) examine it in East Asian countries using a sample of eight firms over the period 2001 to 2004. They find that in countries where code law is effective, classification shifting is common, but that countries with strong legal institutions are associated with less shifting. The study emphasised that the unique corporate governance mechanisms in East Asian countries may have influenced their findings and therefore generalising them to countries outside of East Asia would be risky. In addition, Behn et al. (2013) extend the international studies and investigate the relationship between classification shifting, financial analyst monitoring and investor protection using firms in 41 countries. They find that a strong investor protection mechanism and more financial analyst following in an organisation reduces managers' incentives to misclassify core expenses into non-recurring or exceptional items. They argue that analysts who have industry-specific knowledge and are conversant with finance and accounting issues are able to assess the quality of financial statements and financial reporting processes (Behn et al, 2013; Kimbrough and Louis, 2011). Financial analysts could also play a monitoring role in mitigating managers' opportunistic fraudulent practices and financial reporting irregularities because of the demand for high quality financial reports, which indirectly influences earnings management methods employed by firms. Similarly, Yu (2008) observes that analyst following mitigates accrual-based earnings management and discontinuity around earnings targets, therefore underlining the point that there is a negative relationship between analyst following and managers' earnings management practices

because of the monitoring role of analysts. On the contrary, Behn et al. (2013) observe that a greater analyst following could have a positive relationship with earnings management practices.

4.2.3. Religiosity and Classification Shifting

In terms of the relationship between religiosity and classification shifting, no studies treat the subject at both national and international levels. However, some have examined the relationship between tax evasion, tax avoidance, tax fraud, accrual-based and real activities earnings management and religiosity at both levels. For example, in examining the relationship between tax fraud acceptability and religiosity in 36 countries, Stack and Kposowa (2006) find that there is a negative relationship between them without controlling for cultural differences. Similarly, Richardson (2008) examines the relationship between religion, culture and tax evasion using country-level data from 47 countries. He finds that religion is negatively related to tax evasion, while uncertainty avoidance is positively related to it. In a related study, Callen et al. (2011) examine the relationship between religious background, culture and four metrics of accrual-based earnings management in 49 countries. They observe that proxies for this type of earnings management are unrelated to a country's level of religiosity or specific religious denominations, but that Hofstede's (1980) cultural dimension variables do influence accrual-based earnings management. At the national level, McGuire et al. (2012) and Dyreng et al. (2012) examine the relationship between religiosity and financial reporting irregularities, religiosity and accrual-based management, as well as religiosity and real-activities earnings management, in the U.S. and find that firms located in areas with high religious social norms exhibit lower incidences of financial reporting irregularities, especially where external monitoring is low. These studies

also observe that religiosity is negatively related to accrual-based earnings management, but positively related to the proxies of real activities earnings management. However, neither study controlled for culture. Clearly, the relationship between classification shifting and the religiosity of the firms' environment at both national and international levels remains unexplored. This paper seeks to extend the literature on classification shifting and close the gap with regard to the relationship between it and religiosity at an international level. This is important, because previous studies have indicated that religion has an influence on individuals' behaviour, attitudes and ethical values (Tayler and Bloomfield, 2011; Vitell, 2009; Parboteeah, Hoegl and Cullen, 2008). Recently, Shu et al. (2012) observe a positive relationship between religiosity and high ethical values. Research also indicates that a highly religious environment shapes the behaviour and morals of the individuals in that area (McGuire et al., 2012). For example, values such as accountability, honesty and discipline are known to be associated with highly religious environments (Lehrer, 2004; Keister, 2003; Iannaccone, 1998; Kennedy and Lawton, 1998). Given that classification shifting does not change the bottom line net income, core earnings are inflated, as they are shifted down to the bottom-line of the income statement. Consequently, there is limited external monitoring and no auditor vigilance, as these involve shifting operating expenses into extraordinary/exceptional items (Barnea, Ronen and Sadan, 1976); misclassifying core expenses as special items (Fan et al., 2010; McVay, 2006); and misclassifying operating expenses as discontinued operations (Barua et al. 2010). Thus with limited external monitoring and lack of auditor vigilance, it would appear that religious managers will be inclined or less inclined to engage in classification shifting to increase core earnings. Following the above discussions, one could argue that it is possible that countries with a high level of religiosity will be less inclined to misclassify core

expenses into special items or discontinue operations on ethical grounds. On the other hand, misclassification of core expenses into special items could be beneficial when it signals managers' inside information to potential investors (Scott, 1995). Therefore, following the above discussions, the study posits that countrywide religious social norms are associated with classification shifting because of the incentive to signal managers' inside information and because of the lack of external monitors. Thus, the following hypothesis is presented for testing:

H1: Managers' classification shifting behaviour is related to the religiosity of the country in which they are based

4.2.4. Culture and Classification Shifting

Hofstede et al. (2010) define culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others". Boyd and Richardson (1998, 2005) also define culture as "transmission from one generation to the next, via teaching and imitation, of knowledge, values, and other factors that influence behaviour." Hofstede et al., (1980, 1991, 2001, and 2010) indicate that there are different dimensions of culture. A cultural dimension is an attribute of culture that can be computed relative to other cultures. While the relationship between religiosity and classification shifting is an important consideration, culture can also play a critical role in influencing managers' misclassification of core expenses into special items. Previous cross-country studies have investigated the relationship between accrual-based and real activities earnings management and Hofstede's (1980) cultural dimension variables without consideration of classification shifting. For example, based on firm-level data from 31 countries, Leuz et al. (2003) develop four proxies for accrual-based earnings management without controlling

for culture and find that the relationship between earnings management and investor rights is negatively related at the country level. Similarly, based on firm-level data from 47 countries, Fernandes and Ferreira (2007) repeat the study of Leuz et al. (2003) and observe that accrual-based earnings management in a particular country is influenced by specific firm-level characteristics. Fernandes and Ferreira (2007) find that external financing and firm valuation are negatively related to proxies for accrual-based earnings management; however, they did not control for national culture and countrywide religiosity variables. Indeed, several cross-country studies have investigated the relationship between discretionary accruals or real activities earnings management and culture, but with mixed and diverse results. For example, Guan et al. (2006) used firm-level data in five Asian-Pacific countries to assess the relationship between Hofstede's (1980) cultural dimension variables and discretionary accruals. They found that there is a negative relationship between individualism, uncertainty avoidance and discretionary accruals, a proxy for earnings management.

Similarly, Tsakumis et al. (2007) investigate the relationship between tax evasion and culture in 50 countries without controlling for religion, using both country-level data and Hofstede's (1980) cultural dimension framework. They find a positive relationship between tax evasion and both uncertainty avoidance and power distance, but a negative one between tax evasion and both masculinity and individualism. In a related study, Richardson (2008) examines country-level data from 47 countries to establish the relationship between religion, culture and tax evasion. He finds that Hofstede's (1980) cultural dimension variable of individualism is negatively related to tax evasion, while there is positive relationship between uncertainty avoidance and tax evasion. In addition, Han et al. (2010)

use firm-level data from 32 countries to investigate the relationship between accrual-based earnings management and culture. They find that the relationship between uncertainty avoidance and accrual-based earnings management is negative, but that a positive relationship exists between individualism and this type of earnings management. In contrast, Desender et al. (2007), at the country-wide level, find that countries associated with high individualism and egalitarianism have a low incentive to manage accruals or engage in real activities earnings manipulation. However, they observe that legal institutional factors are correlated with both accrual-based and real activities earnings management. In addition, Callen et al. (2011) investigate the relationship between religiosity, culture and four metrics of accrual-based earnings management in 49 countries. Specifically, they find that Hofstede's (1980) cultural variable of individualism is negatively related to accruals manipulation but uncertainty avoidance is positively related to it.

Clearly, previous studies have failed to investigate or employ Hofstede's updated (1991) cultural metrics to assess how national culture affects the misclassification of core expenses. The literature does not cover the extent to which Hofstede's (1980, 1991) cultural dimension variables of individualism, uncertainty avoidance, power distance and masculinity influence managers' classification shifting behaviour in different countries (Li et al., 2013; Fidrmuc and Jacob, 2010). Therefore, this study reviews and discusses five constructs of national culture and their relationships with opportunistic misclassification behaviour and posits several hypotheses to be tested. It fills this gap in the classification shifting literature in an international setting. With regard to the extent that culture also shapes the attitudes, values, beliefs and behaviour of individuals in an environment or

country, it is important to establish how the updated Hofstede (1980, 1991) cultural dimension variables of individualism, uncertainty avoidance, power distance, long-term orientation and masculinity influence managers' opportunistic reporting behaviour in an international setting.

4.2.4.1 Power Distance

Power distance is the extent to which society accepts the degree of inequality or equality between members of a country, organisations and institutions (Hofstede et al., 2010). A higher score on power distance signifies more power inequality, while a lower score indicates more power equality. In high power distance cultures, individuals accept and expect unequal power distribution. Previous studies (Callen et al., 2011; Hofstede et al., 2010) indicate that in power distance cultures, accounting systems are used by top management and seen as a power holders' tool to usurp authority and control. Hofstede et al. (2010) observe that power distance scores tend be higher for Eastern European, Latin, Asian and African countries, and lower for Scandinavian and English-speaking Western countries. For instance, China and Mexico have power distance scores of 80 and 81 respectively, indicating a high level of power inequality compared with Scandinavian countries such as Finland (33), Norway (31), Sweden (31) and Denmark (30), where the scores suggest a high level of equality. In a power distance cultural environment, when top management want to portray outstanding financial performance to analysts and investors, they may have a strong incentive to engage in classification shifting behaviour. In fact, they will use their influence. Therefore, misclassification of core expenses as special items should take place more regularly in high power distance countries than low power distance ones. Thus the study formulates the following hypothesis for testing:

H2a: Classification shifting is positively related to the degree of power distance in a country.

4.2.4.2. Individualism (versus Collectivism)

These terms indicate the extent to which people are assimilated into societal groups or interpersonal relationships. Individualist cultures show loose ties and limited allegiance to the extended family, and everyone cares about their immediate family and personal interests (Davis and Abdurazokzoda, 2016; Klasing, 2013; Hofstede, 1980, 2010). Collectivist cultures, on the other hand, are societies with strong family ties, and strong extended family systems with firm and unquestioning loyalty, which leads to nepotism and its associated corruption (Licht et al., 2005). Hofstede et al. (2010) observe that individualism tends to prevail in developed Western countries, but that less developed countries are characterised by collectivism. For instance, empirical evidence indicates that the United States is individualistic, with a high score of 80 on Hofstede's evaluation of individualism, compared to China (20 on the scale). Callen et al. (2011) observe that accrual-based earnings management is prevalent in low individualism countries because of formal institutions, nepotism and the presence of powerful networks of influence. Recent studies (Davis and Abdurazokzoda, 2016; Klasing, 2013) indicate that individualism in a society has an effect on the quality of financial reporting and institutions. Following the above discussion, the study posits that countries with high Hofstede individualism scores will exhibit low classification shifting behaviour, or low motivation to misclassify core expenses into special items. Thus the following hypothesis is presented for testing:

H2b: Classification shifting is negatively related to the degree of individualism in a country.

4.2.4.3. Uncertainty Avoidance

Uncertainty avoidance focuses on society's tolerance for uncertain and ambiguous situations. Hofstede et al. (2010) observe that uncertainty avoiding cultures use strict behavioural codes, rules and laws, with a belief in absolute truth and disapproval of divergent views to reduce the possibility of uncertainty. Consequently, individuals are careful, risk-averse, emotional and work hard to avoid unpredictable outcomes. Previous studies (Li and Zahra, 2012; Callen et al., 2011) indicate that countries with high uncertainty avoidance have low tolerance for ambiguity and uncertainty, and there is major concern for security in life. Empirical evidence also indicates that uncertainty avoidance is very high in East and Central European countries, in Latin countries, in Japan and in German speaking countries, and low in English speaking and Chinese culture countries (Hofstede et al., 2010). Specifically, Hofstede et al (2010) observe that there is very high uncertainty avoidance in Greece (112) and Portugal (104), compared to Singapore (8) and Hong Kong (29). People in an uncertain cultural environment require a level of control over their future, life and destiny. Classification shifting provides a way to influence or control firm performance. Therefore, it is possible for managers and people in high uncertainty avoidance cultures or countries to engage in classification shifting behaviour to increase reported core earnings. This discussion leads to the following hypothesis:

H2c: Classification shifting is positively related to the degree of uncertainty avoidance in a country.

4.2.4.4. Masculinity versus Femininity

These terms refer to the distribution of values between genders and concentrates on the extent to which the customary roles of male achievement, control and power, and the work role model, are enforced in a country. Previous research (Davis and Abdurazokzoda, 2016; Callen et al., 2011, Hofstede et al., 2010) indicates that a masculine culture is characterised by aggressive behaviour, assertiveness, competitiveness, self-centredness, power, and a striving for achievement in terms of ego boosting, wealth and recognition. Hofstede et al. (2010) observe that masculinity is high in Japan (95), and Latin countries such as Italy (87) and Mexico (85). It is moderately high in English speaking western countries, but moderately low in Asian countries, France, Spain, Portugal, Chile, Korea and Thailand. However, masculinity is very low in Scandinavian countries, such as Finland (26), Denmark (16), Norway (8) and Sweden (5). In high masculinity countries, the achievement of financial goals and empire building through accounting systems is widespread (Herrmann-Pillatha et al., 2014, Callen et al., 2011; Hofstede and Hofstede, 2005). Therefore, it may be possible that managers' involvement in opportunistic behaviour through the misclassification of core expenses into special items to achieve financial goals and gain recognition is likely to be high in masculine countries. Following the above discussions, the study posits that the occurrence of classification shifting should be high in masculine countries; thus the following hypothesis is formulated for testing:

H2d: Classification shifting is positively related to the degree of masculinity in a country.

4.2.4.5. Long-term Orientation

Long-term orientation centres on the extent to which a country holds long-term devotion to conventional forward thinking values. Hofstede et al. (2010) indicate that values include perseverance towards long-term goals, thrift, being sparing with resources, observing order, having a sense of shame, and having long-term approach to life and business decisions. Alternatively, short-term orientation is about respect for tradition, being generous with resources, personal stability, reciprocation of favours, and a quick result orientation (Callen et al., 2011; Hofstede, 1991). In Hofstede et al.'s (2010) study of masculinity versus femininity index scores, East Asian countries such as China (118), Hong Kong (96), Taiwan (87), Japan (80) and South Korea (75) were noted to have high long-term orientation scores. However, their study observes further that long-term orientation is low in Latin and Asian countries such as France, Spain and Portugal, and Chile, Korea and Thailand. Previous research (Callen et al., 2011; Hofstede, 2005) observes that firms operating in short-term oriented countries normally concentrate on current reported profits and practices that reinforce short-term economic goals such as management reward systems. Recently, Li and Zahra (2012) and Klasing (2013) observe that the short-termism of a local culture makes it possible for businesses to harness opportunities that cannot be ignored. Therefore, as a result of the perceived value placed on current earnings by short-term oriented countries, it may be possible for firm managers in these countries to engage in opportunistic misclassification of core expense into special items to influence current core earnings. Following the above discussions, the study presents the following hypothesis for testing:

H2e: Classification shifting is negatively related to the degree of long-term orientation in a country.

4.2.5. Legal Environment and Classification Shifting

Previous studies (Behn et al., 2013; Callen et al., 2011; Luez et al., 2003; La Porta et al., 1998) have investigated the relationship between a country's legal environment and investor protection; legal environment and accrual-based earnings management; as well as legal environment and the relationship between weak and strong investor protection countries. These studies observe that a strong legal environment boosts investor confidence and mitigates accrual-based earnings management. For example, La Porta et al. (1998) indicate that strong legal enforcement is an indication that there is an active and well-functioning judiciary system which can protect investors and curtail fraudulent management practices. Using "law and order" measured as the aggregate of the efficiency of the judicial system, contract repudiation by government, corruption, rule of law, and risk of expropriation to assess the extent to which the legal enforcement in countries affects investor protection; they observe that common law countries exhibit strong investor protection relative to civil law countries. La Porta et al. (198) conclude that investor protection and law enforcement are strong and effective in countries where the legal rules originate from common law tradition, but weak in those countries whose laws originate from civil law. In a related study, Leuz et al. (2003) examine the relationship between proxies for accruas-based earnings management and investor protection. They find that strong investor protection, evidenced by a well-functioning legal system, exhibits lower levels of accrual-based earnings management than in countries with weak investor protection and legal systems. Following these findings, Callen et al. (2011) argue that Leuz

et al. (2003) did not control for culture and religion; therefore, their findings might be affected by national cultural and religious backgrounds. As a result, they examine the relationship between accrual-based earnings management and the legal environment of the countries by controlling for culture and religion, and find that there is no relationship between accrual-based earnings management and the legal environment when culture and religion are considered as control variables. Recently, Behn et al. (2013) corroborated the findings of La Porta et al. (1998) and observe that classification shifting is common in both weak and strong investor protection countries, but they indicate that classification shifting is more prevalent in weak investor protection countries because of the loose legal enforcement systems. This study attempts to establish the relationship between legal environment and classification shifting on a broader international level for several reasons. First, Behn et al. (2013) did not control for the culture and religiosity of the countries sampled for the study. Second, Callen et al. (2011) found no relationship between accrual-based earnings management and legal environment when culture and religion were used as control variables. Third, no study has examined the relationship between classification shifting and legal environment by controlling for culture and religion. This study fills the gap in the literature on classification shifting and legal environment. It is possible that managers' opportunistic behaviour to inflate core earnings by shifting core expenses into special items could be hampered or enhanced by the interaction between culture and legal environment, or the interaction between religion and legal environment. This is yet to be established in the literature. Following the above discussions and the fact that a country's legal environment, culture and religion can shape firm managers' behaviour, the following hypotheses are presented for testing:

H3a: Managers' classification shifting behaviour is related to the interaction between the legal environment and cultural dimension variables of a country.

H3b: Managers' classification shifting behaviour is related to the interaction between the legal environment and religiosity of a country.

4.3. Research Design and Empirical Methodology

4.3.1. Measuring the Countrywide Religiosity Index

The study gathers countrywide religious datasets from the World Values Survey (WVS) of the World Bank database between 2000 and 2015. The World Values Survey is a global network of social scientists studying changing values and their impact on the social and political life of countries. The survey also aims to help policy makers and academics understand the changes in values, beliefs and motivations of people around the world and how these changes impact on business and economics decisions. It asks representatives of over 143 countries and territories about the frequency of their attendance at religious services, weekly participation in religious activities and the level of importance placed on religious activities on daily basis. The results are based on surveys, and telephone and face to face interviews conducted between 2000 and 2015 with a minimum of 5,000 adults in each country. A total of over 400,000 respondents were interviewed globally. Across all the populations, the median response to the survey questions was 82%. In addition, the survey indicates that 8 out of the 11 countries which are most religious (with a religiosity index of at least 98%) are poorer nations from sub-Saharan Africa and Asia. On the

contrary, the 10 least religious countries from the study have the highest living standards in the world. Of the 27 countries commonly seen as part of the developed world, the median proportion of nationals who state that religion is important, that they attend religious services regularly, and participate in weekly religious activities is below 45%. The only exception is the USA, with a median of 62%.

Table 4.1: Comparison of Most and Least Religious Countries in the World - 2015

Ten Most Religious Countries in the World	Ranking Top Countries	Ten Least Religious Countries in the World	Ranking Bottom Countries
Niger	1	China	1
Sri Lanka	2	Japan	2
Malawi	3	Estonia	3
Indonesia	4	Sweden	4
Yemen	5	Denmark	5
Thailand	6	Czech Republic	6
Armenia	7	Hong Kong	7
Bangladesh	8	Netherlands	8
Georgia	9	United Kingdom	9
Morocco	10	Vietnam	10

Notes: Table 1 shows a comparison of most and least religious countries in the world, as compiled by Gallup. Since 1965, Gallup has conducted interviews about the countrywide religiosity of adults. The results suggest that religious attitudes are very stable, consistent with the World Values Survey of the World Bank as computed by Stack and Kposowa (2006).

4.3.2. Updated Hofstede (1980, 1991) Cultural Dimension Scores

The study also collects countrywide measures of culture from the updated Hofstede (1980, 1991) cultural dimensions, as developed by Tang and Koveos (2008). Initially, four dimensions of power distance, individualism, uncertainty avoidance and masculinity were identified by Hofstede (1980) through a survey of employees' attitudes in all the subsidiaries of IBM using 117 questionaires in 40 countries. This was subsequently revised to include 10 countries and three regional groupings of countries (Hofstede, 1983). A fifth cultural dimension variable, known as long-term orientation, was identified in an international survey involving Chinese employees and managers by Hofstede and Bond (1988, 1991). However, Tang and Keveos (2008) criticised Hofstede (1980) for failing to update or track changes in culture over time. However, Tang and Keveos (2008) admit that some of the concepts fundamental to the original Hofstede (1980) framework are likely to remain intact over time, but others such as Gross Domestic Product (GDP) are susceptible to change after the survey period. Tang and Keveos (2008) revised the Hofstede (1980, 1991) measures by regressing each of the five cultural dimensions with other countrywide variables, such as ethnic background, language, religious background, percentage of working women and weather differences. Consequently, this study uses the updated Hofstede (1980, 1991) cultural dimension variables as computed by Tang and Koveos (2008), such as; power distance scores (POWDIS), individualism scores (INDIV), uncertainty avoidance (UNCAVO), masculinity scores (MASCU) and long-term orientation scores (LONGTEO). The use of Schwartz's (1994) countrywide culture metrics is avoided because Schwartz did not cover all the countries in the study sample, thus using these culture metrics would reduce the sample size for the measurement of classification shifting. House et al. (2004) also provide comprehensive GLOBE cultural data, which is

significantly different from the work of Hofstede (1980, 1991) in methodology and concepts. Given the above discussions and the literature supporting the updated Hofstede (1991) cultural metrics, this study chooses to use the updated Hofstede (1980, 1991) dimension variables as computed by Tang and Koveos (2008).

Legal environment or enforcement scores are also collected from the International Country Risk Guide (ICRG), in line with previous research (Leuz et al. 2003; La Porta et al. 1998), for the period of the study. The ICRG datasets and methodology are used by academics and researchers at the IMF, as the datasets have received commendation in publications such as The Wall Street Journal, The Economist and Baron's. The ICRG employs 22 variables to measure risk in three main areas, political, financial and economic; however, a separate index is created for each subcategory. An aggregate of the three indices is scaled by two to produce the weights needed for inclusion in the composite country risk scores. The range of composite scores is between zero and 10 points. The higher the composite score (between 8 and 10 points), the lower the risk; and the lower the composite score (zero to 4 points), the higher the risk. La Porta et al. (1998), corroborated by Leuz et al., (2003), indicate that the strength of the legal enforcement or environment is measured as the mean score across three legal variables: (i) the efficiency of the judicial system; (ii) an assessment of the rule of law; and (iii) the corruption index. The range is between zero and ten for all three legal variables. This study follows the procedure employed by previous studies (Leuz et al., 2003; La Porta et al., 1998) to estimate the legal environment variable. In addition, country-specific variables such as the annual per capita Gross Domestic Product (GDP), inflation, economic risk and political risk are collected from International Country Risk Guide to control for differences in all the years and across countries.

4.3.3. Fixed Effects (FE) Models and Preliminary Mis-specification Tests

To account for differences in countries and variations in firm sizes, the study follows previous ones (Elshandidy and Neri, 2015; Ntim et al., 2013; Behn et al., 2013; Haw et al., 2011) and employs the fixed-effects regression model to assess the impact of religiosity (RELINT), legal enforcement/environment (LEGALENF) and proxies for CULTURE on unexpected core earnings (UNEXP_CE). The Hausman test is performed and the results favour the fixed effects regression model. Consequently, the alternative random effects regression model is rejected and the fixed effects regression model chosen to test the relationship between the dependent variable (UNEXP_CE) and independent variables (RELINT, LEGALENF and proxies for CULTURE). Therefore, models 2 to 13 are run using the fixed effects regression model. As in chapters 2 and 3, the study also conducts normality tests using Kolmogorov-Smirnov test of normality, tests for the presence of heteroscedasticity, using Breusch-Pagan tests for heteroscedasticity and finally checks for serial correlation or auto-correlation with a Wooldridge test for auto-correlation in panel data. The results of these preliminary tests indicate that the data meet the requirements of normality, there is an absence of heteroscedasticity and auto-correlation or serial effects.

4.3.4. Wald Joint Test for Significance

In line with previous studies (Garcia-Herrero et al., 2009; Dietrich and Wanzenried, 2014), a Wald test is run to omit insignificant variables and to estimate the model with only significant control variables to the maximum extent possible. Specifically, the Wald joint hypothesis test is estimated to ensure that the coefficients of the individual variables that

are insignificant are equal to zero. That is, the null hypothesis is rejected if the p-value is less than 10% (significant) and the study includes the control variable in the model for the analysis. On the other hand, if the p-value is greater than 10% (insignificant), the control variables are omitted from the model. Several Wald tests are run to reduce the number of insignificant control variables in the model until the remaining variable set of coefficients are equal to zero. This approach has the potential to reduce the number of variables to an efficient or minimum size.

4.3.5. Measuring (Normal/Expected Core Earnings) Classification Shifting

As in Chapter 2, and in line with previous studies (Behn et al., 2013; Haw et al., 2011; Fan et al., 2010; McVay, 2006), the study develops expected or normal core earnings (NOR_CE) model within each industry (Fama and French, 1997).

$$NOR\_CE = \beta_0 + \beta_1 CE_{t-1} + \beta_2 ATO + \beta_3 ACRUALS_{t-1} + \beta_4 \Delta SALES + \beta_5 NEG\_\Delta SALES_t + \varepsilon_{t,} \quad (1)$$

The definitions of the variables in the core earnings expectation model above are provided in Table 4.2 (definitions of the variables). The study adapts model (1) in line with Fan et al. (2010) and Haw et al. (2011) for international firms and annual data. Current accruals are excluded from McVay's (2006) model to account for the concerns raised by Fan et al. (2010). As in Chapter 2, lagged core earnings (CE_{t-1}) are included in the model because earlier studies indicate that core earnings are unrelenting. An asset turnover ratio (ATO_t) is also included the model because Nissim and Penman (2001) observe that asset turnover is inversely related to profit margin. In line with previous studies (Fan et al. 2010), lagged operating accruals ($ACCRUALS_{t-1}$) are included because earnings performance is found to

be associated with the accruals figure. Sloan (1996) observes that accruals have a significant effect on future performance. Therefore, careful consideration of the accruals figure will help circumvent the econometric problems noted by McVay (2006). For international companies, the alternative accruals estimation model used by Francis and Wang (2008) and Behn et al. (2013) is employed to estimate accruals. Consistent with previous studies (Behn et al., 2013; Francis and Wang, 2008), the details and data items for the calculation of accruals for international companies are as follows:

where accruals = (earnings before extraordinary items – operating cash flows) total assets in year t_{-1}, where earnings before extraordinary items = net income – extraordinary items; operating cash flows = earnings before extraordinary items + depreciation and amortization + change in deferred income tax + change in untaxed reserve + change in other liabilities + minority interest – current accruals, where current accruals = change in non-cash working capital = Δ(total currents assets – cash and short-term investments – treasury stock shown as current assets - Δ(total current liabilities – total amount of debt in current liabilities – proposed dividends. In addition, Baker et al., (2009) indicate that cost increases are associated with changes in activity level. Therefore, this study includes change in sales Δ*SALES* (and negative change in sales *NEG_*Δ*SALES*) as in the McVay (2006) model.

4.3.6. Measuring (Unexpected Core Earnings) Classification Shifting

Following the above, the study runs model (1) to estimate the coefficients, which are the normal or expected core earnings of each firm. Thereafter, the actual values in the model are multiplied by the coefficients and the unexpected core earnings (UNEXP_CE) is then computed as the difference between reported core earnings (REP_CE) and expected core earnings (NOR_CE) for each firm. When firms engage in classification shifting,

unexpected core earnings increase with special items. The following model is important for carrying out the main tests for international firms:

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 SIZE + \beta_3 BMV + \beta_4 LEV + \beta_5 BIG4 + \beta_6 ROA + \beta_9 GROWTH + \beta_{10} CAPINTEN + \beta_{11} GDP + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (2)$$

where UNEXP_CE is unexpected core earnings and SPITEM is income decreasing special items multiplied by negative one (-1). Similar to Chapter 2, the coefficient β_1 is examined. When β_1 is positive and significant, it is an indication that firms are engaged in misclassification of core expenses into special items, which also suggests that reported core earnings have been influenced or manipulated to exceed expectations. On the other hand, when the coefficient β_1 is negative and significant, it is an indication that the overall firm performance is good and not related to classification shifting. In line with previous studies (Behn et al. 2013; Fan et al. 2010; Ashbaugh et al., 2003), size and book to market value are included as control variables, plus other variables for year and country fixed effects. Firm size (SIZE) is included as a control variable because previous research (Ashbaugh et al. 2003; Callen et al, 2011) indicates that small firms are more likely to influence reported core earnings than large ones, and book to market value (BMV) is included to control for the effects of market capitalisation. Leverage (LEV) is included as a control variable because Zang (2008) finds that firms influence reported profit to meet debt covenants and to secure external financing. Return on assets (ROA) is also included as a firm level control variable because the literature states that earnings management is a function of firm performance (Zalata and Roberts, 2015; Cohen et al. 2008; McVay, 2006). Thus, poor performing firms are more likely to engage in classification shifting, and

therefore the study predicts the co-efficient of ROA to be negative. Similar to Athanasakou et al. (2009) and Doyle et al. (2003), the study controls for GROWTH because these earlier studies indicate that higher changes in working capital are associated with higher growth in firms, which affects future cash flows. The study also controls for per capita gross domestic product (GDP), as previous studies (Leuz et al. 2003) observe that GDP measures the wealth of countries. In line with other studies (Behn et al., 2013; Fan et al., 2010), levels of unexpected core earnings and profitable firms are used to establish the positive relationship between unexpected core earnings and negative special items. A series of regression models are run (Models 1- 13) using the measures of religiosity, legal environment and national dimensions of culture to assess their impact on classification shifting.

Initially, previous studies (Callen et al, 2011; Stack and Kposowa, 2006) are followed for the measurement of countrywide religiosity. This is based on the level of involvement in religious practices from the World Values Survey of the World Bank, consistent with Stack and Kposowa (2006). The countrywide religiosity index is measured as the frequency of attendance at religious services, weekly participation in religious activities and the level of importance placed on religious activities by individuals. Responses were coded on a seven-point scale from never (0) to more than once a week (6) and then averaged for each country. The higher the religiosity measure, the more religious the country is deemed to be, and vice-versa.

To test Hypothesis 1 to assess whether countrywide religiosity constrains the misclassification of core expenses into special items or not, the study uses and runs the following model:

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 RELINT + \beta_3 RELINT\ x\ SPITEM + \beta_4 SIZE + \beta_5 BMV + \beta_6 LEV + \beta_7 BIG4 + \beta_8 ROA + \beta_9 GROWTH + \beta_{10} CAPINTEN + \beta_{11} CULTURE + \beta_{12} GDP + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (3)$$

where countrywide religiosity (RELINT) is the measure of religiosity obtained from the World Values Survey of the World Bank. RELINT x SPITEM is the interactive term between countrywide religiosity and income-decreasing special items. The study expects the co-efficient on the interactive term between countrywide religiosity and negative special items, RELINT x SPITEM (RELSPI), to be significantly negative if religiosity mitigates classification shifting in international firms.

In addition, to test Hypothesis 2, the extent to which countrywide measures of culture (CULTURE) mitigate classification shifting is examined. The study controls for religiosity in the model, as previous studies (Callen et al., 2011) indicate that religiosity is subsumed by other cultural variables. The updated Hofstede (1980, 1991) cultural dimension variables as computed by Tang and Koveos (2008) are used, which include power distance scores (POWDIS), individualism scores (INDIV), uncertainty avoidance (UNCAVO), masculinity scores (MASCU) and long term orientation scores (LONGTEO). Given the criticism levelled against Schwartz's (1994) and House et al.'s (2004) GLOBE cultural data, this study uses the updated Hofstede (1980, 1991) dimension variables, as computed by Tang and Koveos (2008). The following model is therefore presented for testing:

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 CULTURE + \beta_3 CULTURE \times SPITEM + \beta_4 SIZE + \beta_5 BMV + \beta_6 LEV + \beta_7 BIG4 + \beta_8 ROA + \beta_9 GROWTH + \beta_{10} CAPINTEN + \beta_{11} GDP + \beta_{12} RELINT + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (4)$$

where CULTURE represents the proxy for measuring different dimensions of culture, as revised by Hofstede (1981, 1991). CULTURE x SPITEM is the interaction between culture and negative special items. Models (5 to 9) are run by substituting or replacing CULTURE in model (4) by individual dimensions and measures of culture (POWDIS, INDIV, UNCAVO, MASCU and LONGTEO), as defined above. Specifically, the following models (5 to 9) are run to ascertain the effect of culture on classification shifting:

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 POWDIS + \beta_3 POWDIS \times SPITEM + \beta_4 SIZE + \beta_5 BMV + \beta_6 LEV + \beta_7 BIG4 + \beta_8 ROA + + \beta_9 GROWTH + \beta_{10} CAPINTEN + \beta_{11} GDP + \beta_{12} RELINT + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (5)$$

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 INDIV + \beta_3 INDIV \times SPITEM + \beta_4 SIZE + \beta_5 BMV + \beta_6 LEV + \beta_7 BIG4 + \beta_8 ROA + \beta_9 GROWTH + \beta_{10} CAPINTEN + \beta_{11} GDP + \beta_{12} RELINT + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (6)$$

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 UNCAVO + \beta_3 UNCAVO \times SPITEM + \beta_4 SIZE + \beta_5 BMV + \beta_6 LEV + \beta_7 BIG4 + \beta_8 ROA + \beta_9 GROWTH + \beta_{10} CAPINTEN + \beta_{11} GDP + \beta_{12} RELINT + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (7)$$

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 MASCU + \beta_3 MASCU \times SPITEM + \beta_4 SIZE + \beta_5 BMV + \beta_6 LEV + \beta_7 BIG4 + \beta_8 ROA + \beta_9 GROWTH + \beta_{10} CAPINTEN + \beta_{11} GDP + \beta_{12} RELINT + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (8)$$

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 LONGTEO + \beta_3 LONGTEO \times SPITEM + \beta_4 SIZE + \beta_5 BMV + \beta_6 LEV + \beta_7 BIG4 + \beta_8 ROA + \beta_9 GROWTH + \beta_{10} CAPINTEN + \beta_{11} GDP + \beta_{12} RELINT + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (9)$$

If culture helps to mitigate classification shifting, a negative co-efficient on the interactive term between cultural dimension variables and negative special items (CULTURE x SPITEM; POWDIS x SPITEM, INDIV x SPITEM, UNCAVO x SPITEM, MASCU x SPITEM and LONGTEO x SPITEM) is expected. The definitions of all variables in this study are provided in Table 4.3.

Thirdly, this study follows previous ones (Leuz et al. 2003; La Porta et al. 1998) to measure the legal enforcement or environment for each country. La Porta et al. (1998), as corroborated by Leuz et al. (2003), define legal environment as the average score across three legal variables, namely (i) the level of corruption index, (ii) an index of the assessment of rule of law and (iii) an index of the efficiency of the judicial system. The average score of all three legal variables range from zero (0) to ten (10). To test whether the legal environment or enforcement mitigate managers' classification shifting behaviour in different countries, the study controls for culture, as Callen et al. (2011) observe that the legal environment depends on culture. Initially, the following model (10) is employed:

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 LEGALENF + \beta_3 LEGALENF \times SPITEM + \beta_4 SIZE + \beta_5 BMV + \beta_6 LEV + \beta_7 BIG4 + \beta_8 ROA + + \beta_9 GROWTH + \beta_{10} CAPINTEN + \beta_{11} GDP + \beta_{12} CULTURE + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (10)$$

where SPITEM is income-decreasing special items multiplied by negative one (-1), and legal environment (LEGALENF) is the aggregate of countrywide average score across all

three legal variables, as noted in Leuz et al. (2003) and La Porta et al. (1998). LEGALENF x SPITEM (LEGALSPI) is the interaction between the legal environment and negative special items. The study expects a positive and significant co-efficient on SPITEM to demonstrate the occurrence of classification shifting in international firms. If legal enforcement or the environment reduces misclassification in international firms, the study also expects the co-efficient on the interactive term between negative special items and legal environment LEGALSPI to be significantly negative.

In addition, to test Hypotheses 3a and 3b to establish the joint effect of the interactive term between legal environment and religiosity, LEGALENF x RELINT (LEGALREL), and the interactive term between legal environment and culture, LEGALENF x CULTURE (LEGALCUL), on classification shifting, model (11) is run. To avoid multicollinearity problems, culture and religiosity measures are tested separately. A significant and negative relationship between classification shifting and LEGALREL and LEGALCUL is predicted. Therefore, the coefficients on LEGALREL and LEGALCUL are expected to be negative.

Thus, model (11) is run to test the relationship between classification shifting and interactive term LEGALENF x CULTURE (LEGALCUL):

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_6 CULTURE + \beta_7 BCULTURE\ x\ SPITEM + \beta_8 LEGALENF + \beta_9 LEGALENF \times SPITEM + \beta_{10} CULTURE \times LEGALENF + \beta_{11} SIZE + \beta_{12} BMV + \beta_{13} LEV + \beta_{14} BIG4 + \beta_{15} ROA + \beta_{16} GROWTH + \beta_{17} CAPINTEN + \beta_{18} GDP + \beta_6 RELINT + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (11)$$

Model (12) is also run to test the relationship between classification shifting and the interactive term LEGALENF x RELINT (LEGALREL).

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 RELINT + \beta_3 REL\ x\ SPITEM + \beta_4 LEGALENF + \beta_5 LEGALENF\ x\ SPITEM + \beta_6 RELINT \times LEGALENF + \beta_7 SIZE + \beta_8 BMV + \beta_9 LEV + \beta_{10} BIG4 + \beta_{11} ROA + \beta_{12} GROWTH + \beta_{13} CAPINTEN + \beta_{14} GDP + \beta_{15} CULTURE + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (12)$$

Finally, all the variables in model (13) are included to assess their impact on classification shifting.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 RELINT + \beta_3 REL\ x\ SPITEM + \beta_4 LEGALINT + \beta_5 LEGALINT\ x\ SPITEM + \beta_6 CULTURE + \beta_7 BCULTURE\ x\ SPITEM + \beta_8 RELINT \times LEGALINT + \beta_9 RELINT \times CULTURE + \beta_{10} CULTURE \times LEGALINT + \beta_{11} SIZE + \beta_{12} BMV + \beta_{13} LEV + \beta_{14} BIG4 + \beta_{15} ROA + \beta_{16} GROWTH + \beta_{17} CAPINTEN + \beta_{18} GDP + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (13)$$

All the variables are winsorized by year at the extreme 1% and 99% levels.

4.4. Data, Sample Selection and Descriptive Statistics

Financial data was obtained from the Compustat Global Database to estimate abnormal core earnings and determine the extent of classification shifting across countries. The full sample consists of 908,125 firm-year observations for the period 2000 to 2015 from 117 countries. In line with previous studies (Behn et al., 2013), countries require a minimum of 10 firm-year observations to qualify for inclusion in the sample. To estimate abnormal core earnings, 55 countries were excluded because of the insufficient number of observations. All firm-years and variables with missing firm-year observations are also deleted.

Furthermore, to effectively use sales as a deflator for the majority of the variables and to avoid the creation of outliers, any firm year observation with sales revenue of less than $500,000 are excluded, in line with earlier studies (Haw et al., 2011; Fan et al., 2010; McVay, 2006).

In addition, countrywide religious datasets aree obtained from the World Values Survey of the World Bank, in line with previous studies (Callen et al. 2011; Stack and Kposowa, 2008). The study employs the updated Hofstede (1980, 1991) cultural dimension variables as computed by Tang and Koveos (2008) and legal environment scores are obtained from the International Country Risk Guide (2015), similar to Leuz et al. (2003) and La Porta et al. (1998). Consistent with previous studies (Behn et al., 2013; Haw et al., 2011) on classification shifting, the Fama and French (1997) four-digit (SIC) Industry Classification codes are used. The final datasets for all the variables needed for the analysis consist of 63 countries (Table 4.2), 254,916 firm-year observations and 27,289 non-financial firms for the fiscal years 2000 to 2015. Table 4.2 presents the list of countries grouped under International Monetary Fund (IMF) classification of developed, emerging and developing countries. The breakdown of the final datasets consists of 26 developed countries, 26 emerging countries and 11 developing ones with sufficient firm-year observations for the tests and analysis to be conducted. As indicated in Tables 4.2 and 4.9, included in the list of the developed countries are ones with significant number of firm-year observations, such as Australia, Belgium, the United Kingdom, Japan and the United States of America. Similarly, China, Indian, South Korea and Malaysia have a significant number of observations among the list of emerging countries. In addition, Croatia, Tanzania, Vietnam

and Sri Lanka are among the list of developing countries with a high number of firm-year observations.

Table 4.2: List of Developed, Emerging and Developing Economies/Countries

Developed	Emerging	Developing
Australia	Argentina	Côte d'Ivoire
Austria	Brazil	Croatia
Belgium	Chile	Gabonese Republic
Canada	China	Lebanon
Czech Republic	Colombia	Lithuania
Denmark	Estonia	Malawi
Finland	Hungary	Morocco
France	India	Papua New Guinea
Germany	Korea (South)	Sri Lanka
Greece	Kuwait	Tanzania
Iceland	Malaysia	Vietnam
Ireland	Mexico	
Italy	Namibia	
Japan	Nigeria	
Latvia	Oman	
Luxembourg	Peru	
Malta	Philippines	
Netherlands	Poland	
New Zealand	Russian Federation	
Norway	South Africa	
Portugal	Thailand	
Spain	Tonga	
Sweden	Tunisia	
Taiwan	Turkey	
United Kingdom	United Arab Emirates	
United States of America	Venezuela	

Source: IMF World Outlook *Groupings and Classification, (2008).*

In Table 4.3, all the variables used in the analysis are listed and defined. The variables are classified into those measuring reported core earnings (REP_CE); the dependent variable, which is unexpected core earnings (UNEXP_CE); independent variables, which include

negative special items multiplied by country-level of religiosity (RELINTSPI); countrys' legal environment multiplied by negative special items (LEGASPI); proxies for culture multiplied by negative special items (POWDSPI, INDIVSPI, MASCUSPI, UNCAVSPI and LONGTSPI); and control variables (SIZE, ROA, MBV, LEV, BIG4, CAPINTEN, GROWTH and GDP). As indicated above, earlier research (Behn et al., 2013; Haw et al., 2011) provide empirical evidence to demonstrate the links between these control variables and classification shifting; consequently, this study has also attempted to develop direct theoretical and empirical links between these control variables and classification shifting, consistent with previous studies.

Table 4.3. List of Variables and Definitions

Variable Name	Variable Acronym	Definitions
Reported Core Earnings	REP_CE	Estimated as sales – cost of goods sold (COGS) – selling, general and administration expenses (SG&A) scaled by sales. Consistent with Behn et al. (2013), where firms fail to disclose COGS and SG&A, REP_CE is calculated as (sales – total operating expenses)/sales.
Unexpected Core Earnings	UNEXP_CE	Calculated as the difference between expected core earnings (estimated from model 1) and reported core earnings by industry and fiscal year. A minimum of 10 firm year observations are required per industry group.
Special Items	SPITEM	Income-decreasing special items scaled by sales.
Asset Turnover	ATO	Calculated as $Sales_t$ scaled by average net operating assets $[NOA_t+NOA_{t-1}]/2$; average NOA is required to be > 0.

Net Operating Assets	NOA	Calculated as the difference between operating assets (OA) and operating liabilities (OL).
Operating Liabilities	OL	Calculated as total assets – total debt (debt in current liabilities + long-term debt) – book value of common and preferred equity – minority interests.
Operating Assets	OA	Calculated as total assets – cash and short-term investments.
Accruals	$ACCRUALS_{t-1}$	Calculated as in Francis and Wang (2008), as detailed above.
Total Accruals	TACC	Difference between earnings before extraordinary items and discontinued operations and the cash flow from operational activities scaled by lagged total assets, similar to Behn et al (2013).
Working Capital Accruals	WC_ACC	Calculated as a change in current assets net of a change in cash, minus a change in current liabilities net of a change in the current portion of long-term debt, similar to Behn et al (2013).
Change in Sales	$\Delta SALES_t$	Calculated as $(Sales_t - Sales_{t-1})Sales_{t-1}$
Neg. Change in Sales	$NEG\_\Delta SALES_t$	Indicator variable equal to 1 if change in sales < 0, and 0 otherwise.
Religiosity	RELINT	Country level of religiosity measured by the World Values Survey of the World Bank, (Callen et al. 2011).
Religiosity X Special Items	RELINTSPI	Interaction term between income-decreasing special items and a country's level of religiosity.
Legal Enforcement/Environment	LEGALENF	Legal enforcement score from Leuz et al. (2003) and La Porta et al. (1998).
Legal Enforcement/Environment X Special Items	LEGALSPI	Interaction term between legal enforcement and income-decreasing special items
Power Distance	POWDIS	Power distance score from Tang and Koveos (2008), similar to Callen et al. (2011).

Power Distance X Special Items	POWDSPI	Interaction between power distance and income-decreasing special items.
Individualism	INDIV	Individualism score from Tang and Koveos (2008), similar to Callen et al. (2001).
Individualism X Special Items	INDIVSPI	Interaction between individualism and income-decreasing special items.
Masculinity	MASCU	Masculinity score from Tang and Koveos (2008), similar to Callen et al. (2011).
Masculinity X Special Items	MASCUSPI	Interaction between masculinity and income-decreasing special items.
Uncertainty Avoidance	UNCAVO	Uncertainty avoidance score from Tang and Koveos (2008), similar to Callen et al. (2011).
Uncertainty Avoidance X Special Items	UNCAVSPI	Interaction between uncertainty avoidance and income-decreasing special items.
Long-Term Orientation	LONGTEO	Long term orientation score from Tang and Koveos (2008), similar to Callen et al. (2011).
Long-Term Orientation X Special Items	LONGTSPI	Interaction between long term orientation score and income-decreasing special items.
Size of Firms	SIZE	Natural log of market value of equity (Behn et al., 2013).
Return on Assets	ROA	Calculated as net income plus interest expenses scaled by total assets at the beginning of the period (Behn et al., 2013).
Market Book Value	MBV	Natural log of book value of equity scaled by market value of equity (Behn et al., 2013).
Leverage	LEV	Calculated as total liabilities scaled by total assets (Behn et al., 2013).
Big Four Auditors	BIG4	Indicator variable equal to 1 if the firm's auditor is a BIG4 audit firm, otherwise zero (0).
Capital Intensity	CAPINTEN	Calculated as long-term assets scaled by total assets (Leuz et al., 2003; Behn et al., 2013).

Growth	GROWTH	Calculated as market value of outstanding shares at the end of the year scaled by book value of common equity at the end of the year, similar to Athanasakou et al. (2009) and Skinner & Sloan (2002).
Annual Per Capita Gross Domestic Product	GDP	GDP per capita U.S. $.World Development Indicators computed by the World Bank and International Monetary Fund (IMF).

4.4.1 Descriptive Statistics and Findings

Table 4.4 shows the descriptive statistics of the full sample for the regression variables. For each of the variables, the count of the firm-year observations, the mean, the median, the standard deviation, the minimum and the maximum are reported. The mean and median sale (in millions U.S. $) values for the full sample are 72619 and 1180 respectively, suggesting that wide variations in firm size exist among the sample country firms. In addition, the mean and median reported core earnings (REP_CE) are positive, at 0.166 and 0.112 respectively. Similarly, the mean of income-decreasing special item (SPITEM) is positive at 0.001 and the median is zero. The mean and median unexpected core earnings (UNEXP_CE) are equal to zero. This is consistent with previous studies (Behn et al., 2013; Haw et al., 2011). Accruals are income-decreasing, as both the mean and median show negative -0.024 and -0.021 respectively. The mean religiosity (RELINT) across the sample countries is 66.03%; the median is 74.65%, the minimum is 10.6% and the maximum is 98.7%. The mean religiosity figure of 66% suggests that a higher proportion of the country nationals within the sample attend religious services frequently, participate in weekly

religious activities and place a high level of importance on religious activities, according to the findings of the World Values Survey of the World Bank. The mean legal enforcement (LEGALENF) across the countries in the sample is 7.833, the median is 8.891, the minimum is 3.467 and the maximum is 10. The mean of 7.833 also indicates that strong legal enforcement exists in the majority of the countries sampled for the study, which is consistent with the findings of Leuz et al. (2003) and La Porta et al. (1998). The updated Hofstede (1981) cultural dimension variables are as follows: mean and median power distance (POWDIS, 61.06 and 66.19); individualism (INDIV, 48.88 and 47.83); masculinity (MASCU, 56.41 and 56.03); uncertainty avoidance (UNCAVO, 63.15 and 68.05) and long-term orientation (LONGTEO, 37.98 and 34.51), suggesting that there is a wide variation in culture among the countries in the sample (Callen et al., 2011; Hofstede et al., 2010; Hofstede, 1991). However, power distance, uncertainty avoidance and masculinity appear to be the dominant cultures in most of the countries, as evidenced by the high mean (median) cultural scores.

Table 4.4: Descriptive Statistics (Full Sample)

Variables	Count	Mean	Median	Std Dev	Min	Max
SALE	254916	72619.156	1180.305	316145.6	147.574	12280.05
REP_CE	254916	0.166	0.112	0.118	0.004	0.216
UNEXP_CE	254916	0.000	0.005	0.031	-0.066	0.023
SPITEM	254916	0.001	0.000	0.013	0.000	0.005
ATO	254916	3.947	2.605	2.188	2.432	5.430
ACCRUALS	254916	-0.024	-0.021	0.370	0.107	0.371
ΔSALES	254916	0.136	0.069	0.393	-0.042	0.225
NEG_ΔSALES	254916	0.106	0.049	0.360	-0.027	0.179
Control Variables						
SIZE	254916	7.443	7.354	3.071	5.302	9.544
ROA	254916	0.037	0.051	0.150	0.009	0.100
MBV	254916	2.731	2.030	3.223	1.477	2.978
LEV	254916	0.557	0.565	0.196	0.129	0.862
CAPINTEN	254916	0.662	0.660	0.309	0.389	0.873

GDP	254916	19856	19782	15125	306	88003
Independent Variables						
RELINT	254916	66.03	74.65	25.88	10.6	98.7
LEGALENF	254916	7.833	8.891	1.893	3.467	10.00
POWDIS	254916	61.059	66.190	20.366	11.989	86.344
INDIV	254916	48.876	47.829	21.509	12.611	94.263
MASCU	254916	56.410	56.025	22.565	19.761	95.190
UNCAVO	254916	63.149	68.052	25.463	33.689	85.754
LONGTEO	254916	37.983	34.510	20.521	1.820	84.471

Notes: The final sample consists of 254,916 firm-year observations, of which 137,884 are from developed countries, 112,023 from emerging countries, and 5,009 from developing countries. UNEXP_CE is computed as the difference between reported core earnings (REP_CE) and expected core earnings (NOR_CE) by industry and fiscal year (Behn et al., 2013). REP_CE is the reported core earnings estimated as sales – cost of goods sold – selling, general and administration expenses scaled by sales. For countries that disclose only the total value of operating expenses, UNEXP_CE is calculated as (sales – total operating expenses)/sales. SPITEM is negative special items as a percentage of sales. Income-decreasing special items are multiplied by (-1) but income-increasing ones are given a value of zero (0). ΔSales is (Salest – Salest-1)/ Salest and NEG_ΔSales where ΔSALES is less than 0, otherwise zero. ATO is sales scaled by average net operating assets, where net operating assets is the difference between operating assets and operating liabilities. Operating assets = Total assets – Cash and Cash equivalent. Operating Liabilities = Total assets – Total debt - Book value of common equity – Preferred equity – Minority interests. ACCRUALS are calculated following Francis and Wang's (2008) method. SIZE is the natural log of the market value of equity; LEV is measured as total debts scaled by total assets. CAPINTEN is capital intensity measured as the ratio of long-term assets scaled by total assets. ROA is measured as net income before extraordinary items + interest income, divided by total assets at the beginning of the period and MBV is measured as the natural log of book value of equity scaled by the market value of equity. GROWTH is calculated as the market value of outstanding shares at the end of the year scaled by the book value of common equity at the end of the year All other variables are defined in Table 4.3 above.

Table 4.5: Descriptive Statistics (Developed Countries)

Variables	Count	Mean	Median	Std Dev	Min	Max
SALE	137884	58406.3	1238.01	251212.9	68.372	18332.65
REP_CE	137884	0.163	0.110	0.118	0.003	0.212
UNEXP_CE	137884	0.015	0.004	0.125	-0.051	0.068
SPITEM	137884	0.014	0.000	0.041	0.000	0.002
ATO	137884	3.754	2.344	8.794	0.707	5.730
ACCRUALS	137884	-0.015	-0.017	0.385	-0.007	0.291
ΔSALES	136744	0.110	0.043	0.400	0.054	0.172
NEG_ΔSALES	137884	-0.079	0.032	0.354	-0.039	0.147
Control Variables						
SIZE	137884	7.145	7.270	3.363	4.384	9.862
ROA	137884	0.013	0.042	0.176	0.000	0.088
MBV	137884	2.797	2.047	3.402	1.484	3.016

LEV	137884	0.517	0.516	0.261	0.339	0.673
CAPINTEN	137884	0.092	0.043	0.306	-0.054	0.172
GDP	137884	26461	26574	5575	648	88003
Independent Variables						
RELINT	137884	49.09	41.38	23.06	19.71	89.01
LEGALENF	137884	8.75	9.20	1.13	6.82	10.00
POWDIS	137884	45	40	19	11	81
INDIV	137884	63	71	18	27	90
MASCU	137884	46	48	23	14	95
UNCAVO	137884	64	70	23	24	99
LONGTEO	137884	49	52	20	14	88

Notes: The sample consists of 137884 firm-year observations from 26 countries from between 2000 and 2015. UNEXP_CE = computed as the difference between reported core earnings (REP_CE) and expected core earnings (NOR_CE) by industry and fiscal year (Behn et al 2013). REP_CE is the reported core earnings estimated as sales – cost of goods sold – selling, general and administration expenses scaled by sales. Countries that disclose only the total value of operating expenses, UNEXP_CE is calculated as (sales – total operating expenses)/sales. SPITEM is negative special items as a percentage of sales. Income-decreasing special items are multiplied by (-1) but income-increasing special items are given a value of zero (0). ΔSales is (Salest – Salest-1)/ Salest and NEG_ΔSales is where ΔSALES is less than 0, otherwise zero ATO is Sales scaled by average net operating assets. Where net operating assets is the difference between operating assets and operating liabilities. Operating assets = Total assets – Cash and Cash equivalent. Operating Liabilities = Total assets – Total debt - Book value of common equity – Preferred equity – Minority interests. ACCRUALS are calculated following Francis and Wang (2008) method. SIZE is the natural log of the market value of equity; LEV is measured as total debts scaled by total assets. CAPINTEN is capital intensity measured as the ratio of long-term assets scaled by total assets. ROA is measured as net income before extraordinary items + interest income divided by total assets at the beginning of the period and MBV is measured as natural log of book value of equity scaled by market value of equity. GROWTH calculated as market value of outstanding shares at the end of the year scaled by book value of common equity at the end of the year All other variables are defined in Table 4.3.

Table 4.5 presents the descriptive statistics for the developed countries sub-sample for each of the regression variables. For each regression variable, the count of firm-year observations, mean, median, standard deviation, minimum and the maximum statistics is provided. The mean and median sales (in million U.S. $) are 58,406 and 1,238, which is highly skewed and suggests that wide variations exist in firm size in the developed country sub-sample. The mean reported core earnings (REP_CE) scaled by sales are positive at 0.163, with median earnings at 0.110. The mean income-decreasing special items (SPITEM) for developed countries are 0.014, with the median at zero. Similarly, the mean

and median unexpected core earnings (UNEXP_CE) are 0.015 and 0.004 respectively. This is consistent with previous studies in the U.S and UK and other developed countries (McVay, 2006; Athanasakou et al., 2009; Haw et al, 2011). Mean and median religiosity (RELINT) in the developed country sub-sample are 49.09% and 41.38% respectively. The average is below the full sample mean of 66%, suggesting that developed countries do not place a high value on religiosity. There are a few exceptions; for example, the United States has an average of 68.4% in religiosity. In addition, mean and median legal enforcement (LEGALENF) is 8.75 and 9.20, close to the maximum legal score of 10. This indicates that there is strong legal enforcement in the developed country sub-sample. The mean and median cultural dimension variables of POWDIS are 45 and 40, of INDIV 63 and 71, of MASCU 46 and 48, with UNCAVO at 64 and 70 and LONGTEO 49 and 52. The cultural dimension variables of individualism and uncertainty avoidance report the highest mean and median scores, an indication that developed countries are more individualistic and susceptible to uncertainty avoidance (Callen et al., 2011; Hofstede et al., 2010; Tang and Keveos, 2008).

Table 4.6 shows the descriptive statistics for the emerging country sub-sample for each of the regression variables. Each regression variable, count, mean, median, standard deviation, minimum and maximum statistics are reported. Mean sales (in millions U.S. $) are 75,841, with the median at 1,096, which is an indication of heterogeneity in firm size across the countries within emerging economies. The mean and median REP_CE are 0.008 and 0.124 positive respectively, while mean and median SPITEM are 0.002 and zero. The mean and median UNEXP_CE are 0.015 and 0.043 positive. Accruals has both a negative mean and median of -0.034 and -0.028, suggesting income decreasing. The mean and median

RELINT are 72.07% and 80.85%, suggesting that a high percentage of the countries within the emerging sub-sample are religious. The mean and median LEGALENF are 6.02 and 5.98, suggesting that the rule of law, efficiency of the judicial system and ability to combat the level of corruption in emerging countries are not as robust as in developed ones (Leuz et al., 2003; La Porta et al., 1998). In addition, the mean and median of the cultural dimension variable of POWDIS are 67 and 69, of INDIV 31 and 35, with MASCU at 48 and 53, UNCAVO at 67 and 68 and LONGTEO 34 and 39. In the emerging countries, the higher mean and median power distance and uncertainty avoidance suggest that the two are the dominant cultures (Callen et al., 2011; Hofstede et al., 2010; Tang and Keveos, 2008).

Table 4.6: Descriptive Statistics (Emerging Countries)

Variables	Count	Mean	Median	Std Dev	Min	Max
SALE	112023	75841.76	1096.774	346323.2	263.816	6076.423
REP_CE	112023	0.008	0.124	0.103	0.058	0.217
UNEXP_CE	112023	0.015	0.043	0.183	-0.008	0.191
SPITEM	112023	0.002	0.000	0.028	0.000	0.001
ATO	112023	2.171	1.973	2.345	-2.004	5.061
ACCRUALS	112023	-0.034	-0.028	0.327	0.154	0.461
ΔSALES	112023	0.166	0.111	0.384	-0.023	0.276
NEG_ΔSALES	112023	0.138	0.072	0.364	-0.012	0.214
Control Variables						
SIZE	112023	7.706	7.354	2.576	6.032	8.961
ROA	112023	0.065	0.060	0.106	0.018	0.112
MBV	112023	2.651	2.011	2.997	1.470	2.935
LEV	112023	0.498	0.493	0.258	0.319	0.651
CAPINTEN	112023	0.150	0.111	0.310	-0.023	0.276
GDP	112023	18846	10977	4963	245	61313
Independent Variables						
RELINT	112023	72.07	80.85	17.77	10.6	98.1
LEGALENF	112023	6.02	5.98	1.23	3.47	8.19
POWDIS	112023	67	69	17	31	100
INDIV	112023	31	35	19	12	80
MASCU	112023	48	53	18	13	88
UNCAVO	112023	67	68	21	30	95
LONGTEO	112023	34	39	29	13	100

Notes: The sample consists of 112,023 firm-year observations from 26 countries from between 2000 and 2015. UNEXP_CE is computed as the difference between reported core earnings (REP_CE) and expected core earnings (NOR_CE) by industry and fiscal year (Behn et al., 2013). REP_CE is the reported core earnings estimated as sales – cost of goods sold – selling, general and administration expenses scaled by sales. For countries that disclose only the total value of operating expenses, UNEXP_CE is calculated as (sales – total operating expenses)/sales. SPITEM is negative special items as a percentage of sales. Income-decreasing special items are multiplied by (-1) but income-increasing special items are given a value of zero (0). ΔSales is (Salest – Salest-1)/ Salest and NEG, while_ΔSales is where ΔSALES is less than 0, otherwise zero. ATO is sales scaled by average net operating assets, where net operating assets is the difference between operating assets and operating liabilities. Operating assets = Total assets – Cash and Cash equivalent. Operating Liabilities = Total assets – Total debt - Book value of common equity – Preferred equity – Minority interests. ACCRUALS are calculated following Francis and Wang's (2008) method. SIZE is the natural log of the market value of equity; LEV is measured as total debts scaled by total assets. CAPINTEN is capital intensity measured as the ratio of long-term assets scaled by total assets. ROA is measured as net income before extraordinary items + interest income divided by total assets at the beginning of the period and MBV is measured as the natural log of book value of equity scaled by the market value of equity. GROWTH calculated as the market value of outstanding shares at the end of the year scaled by the book value of common equity at the end of the year All other variables are defined in Table 4.3 above.

Table 4.7 also presents descriptive statistics for the developing country sub-sample for each of the regression variables. The count of firm-year observations, mean, median, standard deviation, minimum and maximum statistics are again reported for each regression variable. The mean and median sales (in millions U.S. $) are 39,178 and 6,400 and the mean and median REP_CE are 0.015 and 0.027 positive. The mean and median SPITEM are 0.006 and zero. The mean and median UNEXP_CE are 0.001 and 0.002 positive. The mean and median accruals are negative -0.038 and -0.028, indicating income decreasing accruals. The mean and median RELINT are 85.40% and 89.14, confirming previous research findings that developing and poor countries are very religious (McGuire et al., 2012; Dryeng et al., 2012). The mean and median LEGALENF are 5.62 and 5.89, confirming previous studies (Leuz et al., 2003; La Porta et al., 1998) which observe that the rule of law, the efficiency of the judicial system and the ability to combat the level of corruption in developing countries is weak. In addition, the mean and median cultural dimension variables of POWDIS are 65 and 68, of INDIV 46 and 42, with MASCU at 43 and 48, UNCAVO at 54 and 56 and LONGTEO 55 and 59. This suggests that power

distance and long-term orientation tend to be higher for East European and African countries (Callen et al., 2011; Hofstede et al., 2010; Tang and Keveos, 2008).

Table 4.8 presents the country-level descriptive statistics for religiosity (RELINT), legal enforcement or environment (LEGALENF) and five proxies for the cultural dimension variable: power distance (POWDIS), individualism (INDIV), masculinity (MASCU), uncertainty avoidance (UNCAVO) and long-term orientation (LONGTEO). For each of the 63 countries, the count of firm-year observations and the mean are reported. There is a substantial difference in the number of firm-year observations across countries, which may be due to variations in country size, the availability of financial statements and capital market developments (Leuz et al., 2003). The countries with the highest number of firm-year observations are Australia (15,884), China (24,650), India (25,621), Japan (23,897), Taiwan (17,670), the United Kingdom (18,721) and the United States of America (29,761). The mean (RELINT) for the 63 countries ranges from 10.6% (China) to 98.7% (Morocco). Most developed countries in the sample have a mean RELINT of below 45%, with the exception of Malta (84.10%), Austria (68.7%), the USA (68.4%) and Portugal (62.5%). All developing countries have a mean RELINT of 80% or above, suggesting that poor countries are more religious than rich countries. Similarly, the mean RELINT for emerging countries is 65.45%, suggesting these appear more religious than developed countries. On the contrary, the mean LEGALENF is high in all developed countries (ranging from 9 to 10), and low for all developing countries (ranging from 3.47 to 5.86), suggesting that the legal environment is stronger in developed countries than developing/emerging countries (Leuz et al., 2003; La Porta et al., 1998). Emerging countries have a mean of 6.2. Specifically, the mean LEGALENF for Australia is (9.51), Austria (9.34), Belgium (9.44), Denmark

(10.00), Finland (10.00), the UK (9.22) and the USA (9.54). In contrast, the mean LEGALENF for emerging countries such as China is (6.69), India (5.58), and Malaysia (7.72), and for developing countries such as Malawi is (5.86); Sri Lanka (4.63) and Tanzania (4.18). Similarly, there is wide cultural variation between the countries. Most developed ones exhibit a high mean on individualism (INDIV), with Australia at (90), Greece (89), Canada (80) and Norway (80), suggesting that individuals in most developed countries only care for themselves and their immediate family (Hofstede et al., 2010).

Table 4.7: Descriptive Statistics (Developing Countries)

Variables	Count	Mean	Median	Std Dev	Min	Max
SALE	5009	39178.6	6400.233	747945.3	676.518	368512.5
REP_CE	5009	0.015	0.027	0.425	0.004	0.047
UNEXP_CE	5009	0.001	0.002	0.052	-0.036	0.028
SPITEM	5009	0.006	0.000	0.023	0.000	0.008
ATO	5009	1.251	2.371	29.842	-2.519	6.347
ACCRUALS	5009	-0.034	-0.28	0.276	0.165	0.435
ΔSALES	5009	0.156	0.106	0.343	-0.013	0.252
NEG_ΔSALES	5009	0.144	0.075	0.369	-0.007	0.231
Control Variables						
SIZE	5009	9.743	8.961	3.320	7.101	12.874
ROA	5009	0.085	0.075	0.102	0.028	0.129
MBV	5009	2.715	2.015	2.974	1.445	2.920
LEV	5009	0.481	0.486	0.237	0.302	0.637
CAPINTEN	5009	0.444	0.506	0.285	0.083	0.652
GDP	5009	8657	5483	3440	149	24380
Independent Variables						
RELINT	5009	85.40	83.75	15.67	32.4	98.7
LEGALENF	5009	5.62	5.89	0.78	4.18	7.01
POWDIS	5009	65	68	19	39	100
INDIV	5009	46	42	21	20	80
MASCU	5009	43	48	18	12	66
UNCAVO	5009	54	56	20	29	86
LONGTEO	5009	55	59	22	14	87

Notes: The sample consists of 5009 firm-year observations from 11 developing countries from between 2000 and 2015. UNEXP_CE = computed as the difference between reported core earnings (REP_CE) and expected core

earnings (NOR_CE) by industry and fiscal year (Behn et al 2013). REP_CE is the reported core earnings estimated as sales – cost of goods sold – selling, general and administration expenses scaled by sales. Countries that disclose only the total value of operating expenses, UNEXP_CE is calculated as (sales – total operating expenses)/sales. SPITEM is negative special items as a percentage of sales. Income-decreasing special items are multiplied by (-1) but income-increasing special items are given a value of zero (0). ΔSales is (Salest – Salest-1)/ Salest and NEG_ΔSales is where ΔSALES is less than 0, otherwise zero ATO is Sales scaled by average net operating assets. Where net operating assets is the difference between operating assets and operating liabilities. Operating assets = Total assets – Cash and Cash equivalent. Operating Liabilities = Total assets – Total debt - Book value of common equity – Preferred equity – Minority interests. ACCRUALS are calculated following Francis and Wang (2008) method. SIZE is the natural log of the market value of equity; LEV is measured as total debts scaled by total assets. CAPINTEN is capital intensity measured as the ratio of long-term assets scaled by total assets. ROA is measured as net income before extraordinary items + interest income divided by total assets at the beginning of the period and MBV is measured as natural log of book value of equity scaled by market value of equity. GROWTH calculated as market value of outstanding shares at the end of the year scaled by book value of common equity at the end of the year All other variables are defined in Table 4.3 above.

Table 4.8: Country-Level Descriptive Statistics (Independent Variables)

Country	Count	RELINT (Mean)	LEGALENF (Mean)	POWDIS (Mean)	INDIV (Mean)	MASCU (Mean)	UNCAVO (Mean)	LONGTEO (Mean)
Argentina	865	58.200	5.957	49	46	56	86	20.40
Australia	15884	31.100	9.507	38	90	61	51	21.16
Austria	971	68.700	9.357	11	55	79	70	60.45
Belgium	1285	58.300	9.440	65	75	54	94	81.86
Brazil	2030	94.600	4.533	69	38	49	76	43.83
Canada	1256	87.400	4.792	39	80	52	48	36.02
Chile	2091	58.900	6.523	80	20	66	30	87.41
China	24650	10.600	6.687	80	20	66	30	87.41
Colombia	334	85.400	4.777	67	13	64	80	13.10
Côte d'Ivoire	65	83.400	5.100	80	20	66	30	87.41
Croatia	553	68.700	5.467	68	25	57	29	60.96
Czech Republic	219	29.400	7.333	57	58	57	74	70.03
Denmark	1695	17.400	10.000	18	74	16	23	34.76
Estonia	212	25.200	7.567	40	60	30	60	82.12
Finland	1796	54.200	10.000	33	63	26	59	38.29
France	8508	40.500	8.677	68	71	43	86	63.48
Gabonese Republic	19	78.300	5.967	68	71	43	86	63.48
Germany	8916	38.000	9.053	18	74	16	23	34.76
Greece	2254	72.300	6.817	35	89	66	35	51.13
Hungary	250	34.600	7.667	46	80	88	82	58.19
Iceland	119	89.100	9.330	28	70	68	35	24.43
India	25621	88.800	5.583	77	48	56	40	50.88

Ireland	727	52.300	8.357	58	41	43	59	13.60
Italy	3272	69.800	7.070	50	76	70	75	61.46
Japan	23897	19.000	9.167	54	46	95	92	87.91
Korea	9527	54.200	5.550	60	18	39	85	100.00
Kuwait	694	93.900	7.000	60	18	39	85	100.00
Latvia	323	41.300	7.913	40	60	50	70	63.98
Lebanon	13	77.000	5.913	44	70	9	63	68.77
Lithuania	382	84.100	6.350	42	60	19	65	81.86
Luxembourg	371	37.400	7.153	40	60	50	70	63.98
Malawi	24	97.500	5.857	70	46	53	68	14.11
Malaysia	10717	96.800	7.720	70	46	53	68	14.11
Malta	115	84.100	7.500	81	30	69	82	24.18
Mexico	1390	83.800	5.373	100	26	50	36	40.81
Morocco	363	98.700	6.273	100	26	50	36	40.81
Namibia	26	89.100	6.007	70	46	53	68	14.11
Netherlands	1945	25.200	10.000	38	80	14	53	67.00
New Zealand	1280	36.100	10.000	22	79	58	49	32.75
Nigeria	595	97.500	4.337	80	38	14	53	67.00
Norway	2435	32.600	10.000	38	80	14	53	67.00
Oman	765	81.500	7.567	31	69	8	50	34.51
Papua New Guinea	31	94.400	5.920	94	32	64	44	27.46
Peru	1140	80.200	4.650	64	16	42	87	25.19
Philippines	1677	98.100	3.467	94	32	64	44	27.46
Poland	4130	79.600	6.500	68	60	64	93	37.78
Portugal	698	62.500	7.187	63	27	31	99	28.21
Russian Federation	1866	41.800	7.623	93	39	36	95	81.36
South Africa	3097	83.900	6.447	70	20	40	30	57.18

Spain	8914	38.000	9.051	18	74	16	23	34.76
Sri Lanka	1649	89.400	4.633	42	60	19	65	81.86
Sweden	5383	26.200	10.000	31	71	5	29	52.90
Taiwan	17670	52.700	7.373	66	37	45	85	45.59
Tanzania	61	83.400	4.177	66	37	45	85	45.59
Thailand	5838	87.700	4.893	64	20	34	64	31.74
Tonga	118	91.300	6.367	47	16	58	55	12.59
Tunisia	284	98.100	5.000	47	16	58	55	12.59
Turkey	1873	92.700	4.787	66	37	45	85	45.59
United Arab Emirates	491	93.400	8.190	80	38	53	68	23.00
United Kingdom	18721	34.600	9.223	68	71	43	86	63.48
United States of America	29761	68.400	9.543	61	66	38	98	26.20
Venezuela	145	78.200	5.857	81	12	73	76	15.62
Vietnam	1829	32.400	7.013	70	20	40	30	57.18

Notes: The sample consists of 63 countries, of which 26 are from developed countries, 26 are from emerging ones and 11 from developing countries. RELINT is computed as the country's level of religiosity measured by the World Values Survey (WVS) of the World Bank between 2000 and 2015. LEGALENF is the average score across three legal variables, namely (i) the level of corruption index, (ii) an index of the assessment of rule of law and (iii) an index of the efficiency of the judicial system. The average score of all t three legal variables ranges from zero to ten (Leuz et al., 2003; La Porta et al., 1998). POWDIS = the power distance cultural dimension score from Tang and Koveos (2008). INDIV = the individualism cultural dimension score, also from Tang and Koveos (2008). MASCU = the masculinity cultural dimension score from Tang and Koveos (2008). UNCAVO = the uncertainty avoidance cultural dimension score from Tang and Koveos (2008) and LONGTEO = long-term orientation cultural dimension score from Tang and Koveos (2008). All other variables are defined in Table 4.3 above.

Table 4.9: Country-Level Descriptive Statistics

Country	Count	REP_CE (Mean)	REP_CE (Median)	UNEXP_CE (Mean)	UNEXP_CE (Median)	SPITEM (Mean)
Argentina	865	0.203	0.173	0.002	0.001	0.003
Australia	15884	0.190	0.138	0.003	-0.003	0.004
Austria	971	0.314	0.277	0.003	0.001	0.001
Belgium	1285	0.328	0.222	0.002	0.001	0.001
Brazil	2030	0.369	0.149	0.003	0.001	0.001
Canada	1256	0.305	0.280	0.009	-0.001	0.003
Chile	2091	0.126	0.116	0.009	0.001	0.002
China	24650	0.114	0.104	0.002	0.001	0.002
Colombia	334	0.255	0.237	0.002	0.001	0.004
Côte d'Ivoire	65	0.130	0.108	0.006	0.002	0.002
Croatia	553	0.209	0.186	0.012	0.001	0.001
Czech Republic	219	0.260	0.213	0.002	0.003	0.003
Denmark	1695	0.149	0.134	0.002	0.001	0.001
Estonia	212	0.207	0.183	0.008	0.005	0.004
Finland	1796	0.434	0.384	0.004	0.002	0.003
France	8508	0.259	0.187	0.014	0.002	0.001
Gabonese Republic	19	0.501	0.455	0.002	0.001	0.000
Germany	8916	0.312	0.220	0.002	0.002	0.001
Greece	2254	0.187	0.121	0.006	-0.006	0.001
Hungary	250	0.180	0.128	0.003	0.002	0.003
Iceland	119	0.155	0.129	0.004	0.002	0.001

India	25621	0.253	0.119	-0.011	-0.006	0.002
Ireland	727	0.130	0.123	0.007	0.004	0.002
Italy	3272	0.318	0.217	0.002	0.001	0.001
Japan	23897	0.133	0.103	0.007	0.006	0.001
Korea	9527	0.179	0.108	0.002	0.002	0.001
Kuwait	694	0.194	0.142	-0.002	-0.007	0.002
Latvia	323	0.119	0.102	0.005	-0.007	0.001
Lebanon	13	0.326	0.233	0.002	0.001	0.000
Lithuania	382	0.171	0.119	0.007	0.006	0.001
Luxembourg	371	0.117	0.105	0.001	0.001	0.002
Malawi	24	0.298	0.278	0.001	-0.002	0.004
Malaysia	10717	0.169	0.138	0.002	0.001	0.002
Malta	115	0.275	0.284	0.002	-0.003	0.001
Mexico	1390	0.206	0.168	0.002	0.001	0.004
Morocco	363	0.226	0.171	0.003	0.001	0.001
Namibia	26	0.123	0.115	0.004	0.001	0.002
Netherlands	1945	0.324	0.207	0.002	0.002	0.001
New Zealand	1280	0.275	0.180	0.006	0.006	0.002
Nigeria	595	0.165	0.139	0.003	0.003	0.005
Norway	2435	0.253	0.232	0.002	0.003	0.003
Oman	765	0.194	0.164	0.002	0.002	0.001
Papua New Guinea	31	0.420	0.382	0.004	0.003	0.003
Peru	1140	0.292	0.171	0.003	0.005	0.003
Philippines	1677	0.291	0.177	0.001	0.001	0.001
Poland	4130	0.220	0.182	0.001	-0.001	0.001
Portugal	698	0.303	0.255	0.001	0.006	0.003
Russian Federation	1866	0.207	0.180	0.003	0.002	0.001

South Africa	3097	0.201	0.131	0.005	0.002	0.001
Spain	8916	0.312	0.220	0.002	0.002	0.001
Sri Lanka	1649	0.170	0.122	0.001	0.002	0.003
Sweden	5383	0.147	0.109	0.004	0.001	0.002
Taiwan	17670	0.194	0.113	0.004	0.001	0.002
Tanzania	61	0.321	0.308	0.003	0.002	0.004
Thailand	5838	0.251	0.201	0.005	0.004	0.003
Tonga	118	0.216	0.173	0.001	-0.001	0.001
Tunisia	284	0.219	0.205	-0.001	-0.003	0.002
Turkey	1873	0.352	0.296	0.004	0.002	0.004
United Arab Emirates	491	0.218	0.189	0.004	0.003	0.001
United Kingdom	18721	0.262	0.105	0.004	0.001	0.002
United States of America	29761	0.266	0.258	0.002	0.001	0.004
Venezuela	145	0.325	0.256	0.002	0.001	0.002
Vietnam	1829	0.146	0.108	0.003	0.002	0.002

Notes: The sample consists of 63 countries, of which 26 are from developed countries, 26 are from emerging ones and 11 from developing countries. UNEXP_CE is computed as the difference between reported core earnings (REP_CE) and expected core earnings (NOR_CE) by industry and fiscal year (Behn et al., 2013). REP_CE is the reported core earnings estimated as sales – cost of goods sold – selling, general and administration expenses scaled by sales. For countries that disclose only the total value of operating expenses, UNEXP_CE is calculated as (sales – total operating expenses)/sales. SPITEM is negative special items as a percentage of sales. Income-decreasing special items are multiplied by (-1) but income-increasing special items are given a value of zero (0). All other variables are defined in Table 4.3 above.

Mean power distance (POWDIS) is high for both emerging countries (Mexico, 100; Chile, 80; China, 80; Philippines, 94) and developing countries (Morocco, 100; Papua New Guinea, 94; Croatia, 68 and Vietnam, 70), suggesting that individuals in these countries accept inequality and expect that power is distributed unequally (Callen et al., 2011; Hofstede et al., 2010). The other cultural dimension variables exhibit wide variations in mean figures across the countries.

In addition, Table 4.9 provides further countrywide descriptive statistics. For each of the 63 countries, the count of firm-year observations, the mean and the median for reported core earnings (REP_CE), unexpected core earnings (UNEXP_CE) and income-decreasing special items (SPITEM) are reported. The mean of income-decreasing special items scaled by sales for the 63 countries is 0.003, with Nigeria (0.005), Australia (0.004), the USA (0.004), Estonia (0.004) and Turkey (0.004) exhibiting the highest income-decreasing special items. The mean and median unexpected core earnings (UNEXP_CE) for the 63 countries are 0.004 and 0.007 and the mean and median income-decreasing special items are consistent with the distribution reported by previous research (Behn et al., 2013; Haw et al., 2011).

To ensure that there is non- multi-collinearity problem, in Table 4.10 both the Pearson and Spearman correlation coefficients are presented for all the variables in the regression model. The Pearson product-moment correlation coefficients are shown above, and Spearman's rank-order correlation coefficients are shown below. It is worth noting that the directions of both Pearson and Spearman correlation coefficients are generally similar, an indication that there is a lack of multi-collinearity problem within the data. Again, Consistent with Green (2012) and Kennedy (2008) further tests are conducted to ensure

that there are no multi-collinearity problems. The study estimates the variance inflation factor (VIF) for the independent variables and the highest VIF among all the independent variables is below 3.4. Green (2012) indicates that a VIF of 10 or less is a good sign of non-multicollinearity problems. Appendix C, Table C1 provides results showing both the VIF and the tolerance level (TOL) for all the independent variables in the study. As indicated in Table 4.10, UNEXP_CE is negatively and significantly correlated with RELINT, LEGALENF, ROA, SIZE, MBV, BIG4, GDP, INDIVSPI and LONGTSPI. However, UNEX_CE is positively and significantly correlated with SPITEM, LEV, GROWTH, CAPINTEN, POWDSPI, UNCAVSPI and MASCUSPI. Consistent with previous studies (Callen et al., 2011; Leuz et al., 2003), legal enforcement, religiosity and the updated Hofstede cultural variables of individualism and uncertainty avoidance are significantly and negatively correlated with each other and with the unexpected core earnings. Given the correlation between the variables, it is therefore important to carry out multivariate regression analysis to ascertain whether unexpected core earnings are mitigated by religion, legal environment or culture, by an interactive term between culture and legal environment or by an interactive term between religion and legal environment. The correlation coefficients support the validity of the model and the multivariate regression results will further confirm the relationship.

Table 4.10: Pearson's above and Spearman's below correlation matrices (full sample)

	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	REP_CE		**0.21**	**0.08**	0.01	-0.12	0.04	0.06	-0.14	-0.03	-0.05	**0.08**	**0.05**	**-0.02**	**-0.05**	**-0.05**	**0.04**	**-0.11**	**0.05**	**0.01**	**-0.10**
2	UNEXP_CE	**0.21**		**0.09**	**-0.04**	**-0.02**	**-0.06**	**-0.01**	**-0.14**	**-0.20**	**-0.07**	**0.04**	**0.04**	**-0.03**	**-0.02**	**-0.02**	**0.03**	**-0.03**	**-0.04**	**0.00**	**-0.04**
3	SPITEM	**0.08**	**0.09**		-0.01	-0.13	-0.04	-0.09	-0.21	**-0.07**	**-0.02**	**0.03**	**-0.06**	**0.01**	**-0.02**	**-0.11**	**-0.08**	**0.17**	**-0.07**	**-0.01**	-0.12
4	ATO	0.01	**-0.04**	-0.02		0.02	-0.01	0.00	0.02	0.00	**0.03**	0.07	-0.01	0.07	**0.01**	**-0.01**	**0.00**	**0.00**	**0.00**	**0.00**	0.02
5	ACCRUALS	-0.12	**-0.02**	-0.15	0.07		-0.01	-0.01	0.25	0.27	**0.10**	**-0.23**	**0.01**	**0.18**	**0.08**	**-0.28**	**0.19**	**-0.28**	**0.08**	**-0.07**	0.11
6	ΔSALES	0.04	**-0.06**	-0.06	-0.02	-0.07		0.17	-0.06	0.10	**-0.02**	**-0.08**	**0.17**	**0.02**	**-0.07**	**0.08**	**0.04**	**-0.01**	**-0.01**	**-0.06**	-0.04
7	NEG_ΔSALES	0.06	**-0.05**	**-0.06**	**0.06**	0.00	0.15		-0.01	0.22	**0.00**	**0.02**	**0.16**	**-0.04**	**0.05**	**-0.05**	0.05	-0.03	-0.01	**-0.04**	-0.01
8	SIZE	-0.14	**-0.11**	**-0.23**	**0.08**	0.24	-0.02	0.02		0.29	**0.12**	**0.09**	**-0.04**	**0.19**	**-0.14**	**-0.18**	-0.19	-0.40	0.27	**0.10**	**0.39**
9	ROA	-0.03	**-0.21**	**-0.05**	**0.04**	0.25	0.13	0.22	0.26		**-0.02**	**-0.12**	**0.14**	**0.01**	**0.04**	**-0.17**	0.13	-0.16	0.02	**-0.01**	**0.11**
10	MBV	-0.05	**-0.10**	**-0.01**	**0.02**	**0.11**	**-0.01**	**0.05**	**0.13**	**-0.02**		0.15	-0.02	0.23	**-0.06**	**0.01**	-0.02	0.02	0.01	**0.02**	**0.07**
11	LEV	**0.08**	**0.04**	**0.06**	**0.07**	**-0.16**	**-0.05**	**0.01**	**0.10**	**-0.11**	0.13		-0.07	0.27	**-0.08**	**0.00**	**-0.02**	**0.06**	**-0.03**	**0.02**	**0.11**
12	CAPITEN	**0.05**	**0.06**	-0.06	-0.02	**0.07**	**0.14**	**0.19**	**-0.02**	**0.13**	-0.01	-0.05		-0.02	**0.07**	**-0.07**	**0.06**	**-0.03**	**-0.01**	**-0.06**	**-0.03**
13	GDP	**-0.02**	**-0.02**	0.03	0.03	**0.23**	**0.01**	**-0.03**	**0.24**	**0.01**	0.23	0.26	-0.01		0.00	**0.02**	**-0.03**	**0.08**	**-0.05**	**0.00**	**0.04**
14	RELINT	**-0.05**	**-0.02**	**-0.06**	**0.01**	**0.05**	**-0.09**	**0.07**	**-0.16**	**0.08**	**-0.08**	**-0.08**	**0.09**	0.00		**-0.30**	0.20	-0.17	-0.01	-0.29	**-0.28**
15	LEGALENF	**-0.05**	**-0.06**	**-0.09**	**-0.02**	**-0.31**	**0.10**	**-0.08**	**-0.19**	**-0.13**	**0.03**	**-0.01**	**-0.10**	**0.01**	**-0.27**		**-0.24**	**0.35**	**-0.15**	**0.35**	**-0.05**
16	POWDIS	**0.04**	**0.07**	**-0.05**	**0.01**	**0.24**	**0.02**	0.10	0.11	0.13	-0.02	**-0.03**	**0.05**	**-0.02**	**0.23**	**-0.27**		-0.23	0.20	0.26	**0.24**
17	INDIV	**-0.12**	**-0.10**	**0.22**	**0.01**	**-0.26**	**-0.05**	-0.05	-0.42	-0.08	0.02	**0.06**	**-0.05**	**0.07**	**-0.16**	**0.36**	-0.25		-0.26	0.18	**-0.23**
18	MASCU	**0.02**	**0.03**	**-0.05**	**-0.02**	**0.09**	**-0.02**	-0.03	0.30	0.06	0.01	**-0.02**	**-0.02**	**-0.05**	**-0.07**	**-0.10**	**0.15**	**-0.26**		**0.39**	**0.21**
19	UNCAVO	**0.03**	**0.02**	**-0.04**	**0.00**	**-0.10**	**-0.09**	-0.06	**0.12**	**0.04**	**0.02**	**0.03**	**-0.08**	**0.01**	**-0.28**	**0.31**	**0.26**	**0.20**	**0.35**		0.12
20	LONGTEO	**-0.10**	**-0.04**	-0.12	0.02	0.09	-0.04	-0.02	**0.42**	**0.05**	**0.06**	**0.11**	**-0.04**	**0.03**	**-0.26**	**-0.01**	**0.21**	**-0.25**	**0.21**	0.13	

Notes: The final sample consists of 254,916 firm-year observations, of which 137,884 are from developed countries, 112,023 from emerging countries and 5,009 from developing ones. Table 4.10 shows both Pearson and Spearman correlation coefficients. The Pearson product-moment correlation coefficients are shown above and the Spearman rank-order correlations coefficients are shown below. All variables are winsorized at 1 percent and 99 percent and are defined in Table 4.3. Bold co-efficient are significant at $P < 0.10$ (two tailed test).

4.5. Empirical Regression Results and Discussion

4.5.1. Testing the Existence of Classification Shifting in the Global Sub-sample

To assess the joint effect of legal environment and religiosity, and legal environment and national culture on classification shifting in international firms, the study first examines the existence of classification shifting in the full sample (63 countries), and also the sub-samples of developed, emerging and developing countries to test whether misclassification as an earnings management method is prevalent or differs among the three groups of countries.

Table 4.11 presents the regression results of the four separate fixed effect regression models using the full sample, the developed, the emerging and developing countries sub-samples. Initially, only SPITEM is included in the full and sub-sample models. The relationship between SPITEM and UNEXP_CE is positive and significant at the 1% level. Thereafter, the control variables are included and the relationship between unexpected core earnings (UNEXP_CE) and income-decreasing special items (SPITEM) is examined. For the the full sample and each sub-sample, if firms in the country classifications shift, then the coefficient on SPITEM should be positive and significant. The results indicate that the relationship between SPITEM and UNEXP_CE is positive and significant at the 1% level for both emerging and developing countries. However, SPITEM is positively related to UNEXP_CE at the 5% significance level in developed countries. This is consistent with previous studies (Behn et al., 2013; Haw et al., 2011) on classification shifting, which confirms the existence of misclassification in international firms.

Table 4.11: Testing the Existence of Classification Shifting in the Global Sub-samples

Dependent Variable :UNEXP_CE				
	(1)	(2)	(3)	(4)
VARIABLES	Full Sample	Developed	Emerging	Developing
SPITEM	0.748***	0.128**	0.379***	0.313***
	(6.923)	(2.076)	(4.991)	(3.259)
SIZE	-0.063***	-0.106***	-0.018***	-0.015*
	(-7.167)	(-6.994)	(-5.022)	(-1.776)
ROA	-0.089***	-0.274***	-0.563***	-0.137*
	(-7.272)	(-3.545)	(-5.218)	(-1.740)
MBV	-0.001	-0.002	-0.001	-0.002
	(-1.476)	(-1.076)	(-1.118)	(-0.641)
LEV	0.387***	0.151***	0.664***	0.404***
	(6.459)	(4.940)	(4.235)	(6.842)
BIG4	-0.025**	-0.026**	-0.038***	-0.133**
	(-2.511)	(-2.244)	(-3.146)	(-2.048)
CAPINTEN	0.030**	0.022**	0.017*	0.027*
	(2.309)	(2.157)	(1.703)	(1.733)
GROWTH	0.055***	0.056***	0.058***	0.133***
	(3.511)	(3.844)	(6.146)	(5.948)
GDP PER CAPITA	-0.349	-0.970	-0.476	-0.681
	(-0.682)	(-0.989)	(-0.816)	(-0.848)
CONSTANT	0.329***	0.732***	0.159***	0.455***
	(6.593)	(5.574)	(5.592)	(4.029)
Observations	254916	137884	112023	5009
R-squared	0.20	0.22	0.37	0.40
Country Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Breusch-Pagan	3343.31	2178.41	2022.83	1178.83
P-Value	(0.7581)	(0.7024)	(0.6595)	(0.6183)
Kolmogorov-Smirnov	635.17	542.35	407	386
P-Value	(0.5327)	(0.5237)	(0.5213)	(0.4218)
Wooldridge Test	122.48	148.91	92.43	86.76
P-Value	(0.4019)	(0.4137)	(0.3913)	(0.3710)

Notes: *,** and *** are used in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The table shows the co-efficient estimates and t-statistics (in brackets). *SPITEM* = income-decreasing special items scaled by sales; SIZE is the natural log of the market value of equity; and LEV is measured as total debts scaled by total assets. CAPINTEN is capital intensity measured as the ratio of long-term assets scaled by total assets. ROA is measured as net income before extraordinary items + interest income divided by total assets at the beginning of the period and MBV is measured as the natural log of book value of equity scaled by the market value of equity. GROWTH is calculated as the market value of outstanding shares at the end of the year scaled by the book value of common equity at the end of the year. All variables are defined in Table 4.3 above.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 SIZE + \beta_3 LEV + \beta_4 ROA + \beta_5 MBV ++ \beta_6 BIG4 + \beta_7 CAPINTEN + \beta_8 GROWTH + \beta_9 GDP + Year\ Fixed\ Effects + Country\ Fixed\ Effects$$

The results also indicate that SIZE and ROA are negatively related to UNEXP_CE at the 1% significance level in both developed and emerging countries, but at the 10% significance level in developing countries. This suggests that the sub-samples of developed, emerging and developing countries have more small firms, as previous studies (Behn et al., 2013; Haw et al., 2011) indicate that the smaller the firm, the more likely its management will be involved in classification shifting behaviour to increase reported core earnings. The negative coefficient of ROA also suggests that firms in the developed, emerging and developing country sub-samples increase their reported core earnings through classification shifting when profits are low, and decrease misclassification of core expenses when profits are high. This finding is consistent with earlier studies (Behn et al., 2013; Athanasakou et al., 2009). Similarly, the study controls for the BIG4 auditors, as previous studies indicate that effective corporate governance mechanisms play a monitoring role in subduing firms' classification shifting behaviour (Zalata and Roberts, 2015). From the results, there is a negative and significant relationship at 5% and 1% between BIG4 and UNEXP_CE in developed, developing and emerging countries respectively, suggesting that the presence of BIG4 auditors mitigates misclassification of core expenses into special items in international firms. This finding is consistent with previous research (Zalata and Roberts, 2015; Behn et al., 2013; Haw et al., 2011). The relationship between MBV and UNEXP_CE is negative, but not significant. On the other hand, the coefficient of LEV is positive and significant at 1% for all the sub-samples, suggesting that firms in developed, emerging and developing countries engage in classification shifting to improve their reported core earnings when securing external financing. Similarly, the relationship between CAPINTEN and UNEXP_CE is positive and significant at 5% and 10% for developed countries, emerging and developing countries respectively. In addition, GROWTH is positively

related to UNEXP_CE and significant at the 1% level for all the sub-samples, an indication that share prices respond positively to good reported core earnings. GDP per capita is also negatively related to UNEXP_CE, but not significant. From the above discussions, it is concluded that misclassification of core expenses into special items is pervasive management behaviour occurring in developed, emerging and developing countries, with greater evidence of it in emerging and developing countries, as indicated by coefficients which are statistically significant at the 99% confidence level for both emerging and developing countries, and 95% for developed countries. In general, the control variables also exhibit various signs and levels of significance consistent with earlier studies (Behn et al., 2013; Haw et al., 2011, Fan et al., 2010; McVay, 2006).

4.5.2. Relationship between Countrywide Religiosity and Classification Shifting

To test hypothesis 1, the relationship between countrywide religiosity (RELINT) and unexpected core earnings (UNEXP_CE) is examined, as well as the interactive term between RELINT X SPITEM (RELINTSPI) and UNEXP_CE as the variable of interest. Consistent with previous studies (McGuire et al., 2012; Behn et al., 2013), fixed effects regression model (3) is run to account for the variations in firm sizes and country-level differences. The first hypothesis predicts a negative or positive relationship between RELINTSPI and UNEXP_CE. Table 4.12 presents the findings for the full sample, as well as for the developed, emerging and developing country sub-samples. Regardless of the sample examined, SPITEM is positive and significant at 1% for both the full sample and sub-samples, confirming the earlier findings in Table 4.11 that classification shifting is prevalent in all the sub-samples. The results in Table 4.12 also indicate that RELINT is

negatively related to UNEXP_CE at 5% and 10% significance levels in the developing, and emerging country sub-samples respectively. Similarly, it is found that the relationship between RELINTSPI (RELINT×SPITEM) and UNEXP_CE is negative and significant at 1% and 5% levels for the developing and emerging country sub-samples. Consistent with previous studies (McGuire et al., 2012; Dyreng et al., 2012), this finding suggests that religiosity mitigates misclassification of core expenses into special items. However, the findings of this study contradict those of Callen et al. (2011), who observe that religiosity is unrelated to earnings management. This study controls for culture and shows that management classification shifting behaviour is subdued by the religious social norms of the country's firm environment and that the effect is acute in developing countries, where the median religiosity figure is over 80%. The study controls for both culture and BIG4 auditors because previous studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012) observe that they impact negatively on earnings management practices. Similar to Chapter 2, the negative association suggest that religious managers possibly deem it unacceptable, unethical and morally wrong to engage in classification shifting to boost core earnings to signal their inside information to investors, to raise the expectations of the market, or to beat/meet earnings benchmarks (McGuire et al., 2012).

Table 4.12: Regression of Countrywide Religiosity and Classification Shifting

Dependent Variable: UNEXP_CE				
	(1)	(2)	(3)	(4)
VARIABLES	Full Sample	Developed	Emerging	Developing
SPITEM	0.851***	0.110***	0.784***	0.235**
	(2.869)	(2.586)	(8.681)	(2.430)
RELINT	-0.054**	-0.072	-0.171*	-0.237**
	(-1.980)	(-1.430)	(-1.779)	(-2.304)
RELINTSPI	-0.906***	-0.308	-0.349**	-0.676***
	(-3.493)	(-1.551)	(-2.512)	(-3.208)
SIZE	-0.063***	-0.105***	-0.018***	-0.014
	(-7.166)	(-6.884)	(-4.953)	(-1.247)
ROA	-0.088***	-0.274***	-0.565***	-0.136*
	(-7.242)	(-4.548)	(-5.259)	(-1.726)
MBV	-0.001	-0.002	-0.001	-0.002
	(-1.472)	(-1.069)	(-1.130)	(-0.694)
LEV	0.387***	0.151***	0.663***	0.405***
	(9.448)	(4.941)	(4.164)	(6.855)
BIG4	-0.029**	-0.057***	-0.057***	-0.133**
	(-2.034)	(-3.861)	(-6.106)	(-1.945)
CAPINTEN	0.305***	0.293***	0.316***	0.025
	(15.307)	(9.163)	(15.363)	(0.489)
GROWTH	0.007**	0.045*	0.055***	0.052**
	(2.287)	(1.691)	(3.425)	(2.498)
CULTURE	-0.977	-0.291	-0.076	-0.700
	(-0.061)	(-0.205)	(-0.481)	(-0.531)
GDP PER CAPITA	-0.379	-0.990	-0.481	-0.981
	(-0.642)	(-0.799)	(-0.216)	(-0.748)
CONSTANT	0.644	0.383	0.381*	0.699
	(1.219)	(1.004)	(1.710)	(1.163)
Observations	254916	137884	112023	5009
R-squared	0.21	0.22	0.37	0.42
Country Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Breusch-Pagan	2732.18	2203.12	2044.73	1583.32
P-Value	(0.6547)	(0.6242)	(0.6189)	(0.6033)
Kolmogorov-Smirnov	751.73	746.65	640.68	638.63
P-Value	(0.5423)	(0.5327)	(0.5289)	(0.4815)
Wooldridge Test	128.82	153.18	96.59	87.47
P-Value	(0.4132)	(0.4347)	(0.3968)	(0.3757)

Notes: *,** and *** are used in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The study shows co-efficient estimates and t-statistics (in brackets).. All variables are defined in Table 4.3 above.

$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 RELINT + + \beta_3 RELINT\ x\ SPITEM + \beta_4 SIZE + \beta_5 LEV + \beta_6 ROA + \beta_7 MBV + \beta_8 BIG4 + \beta_9 CAPINTEN + \beta_{10} GROWTH + \beta_{11} CULTURE + \beta_{12} GDP +$ *Year Fixed Effects +Country Fixed Effects*

4.5.3. Testing the Relationship between Hofstede's Updated Cultural Variables and Classification Shifting

To test hypotheses 2a to 2e, the study runs models 5 to 9 using the updated Hofstede cultural dimensions as computed by Tang and Koveos (2008), namely; power distance scores (POWDIS), individualism scores (INDIV), uncertainty avoidance (UNCAVO), masculinity scores (MASCU) and long term orientation scores (LONGTEO). Model 5 is run to examine the relationship between power distance scores (POWDIS) and unexpected core earnings (UNEXP_CE), as well as the interaction between POWDIS X SPITEM (POWDSPI) and unexpected core earnings (UNEXP_CE). The variable of interest is POWDSPI and a positive relationship between POWDSPI and UNEXP_CE is predicted, in line with previous studies (Callen et al., 2011; Han et al, 2010).

Table 4.13 provides the results for the full sample, and for developed, emerging and developing country sub-samples. SPITEM is positive and significantly related to UNEXP_CE at 99% and 95% confidence levels, confirming the existence of classification shifting in the developed, emerging and developing country sub-samples. The results also indicate that POWDIS and POWDSPI are positively related to UNEXP_CE at 1% and 5% significance levels for the developing and emerging country sub-samples respectively. This finding is consistent with previous research (Callen et al., 2011; Han et al., 2010; Hofstede et al., 2010), which observes that earnings management occurs more frequently in high power distance cultures than in low power distance ones. The findings also confirm that power inequality exists in developing, emerging and developed countries. Hofstede et al. (2010) indicate that power distance index scores are high for countries in Africa, Asia, Latin America and Eastern European, but low for English and German-speaking western

countries. The findings from the study contribute to the literature and support the notion that accounting systems are used to validate the decisions of top management, and applied as a tool to portray their image, thus misclassification of core expenses serves as an incentive and a mechanism to achieve the desired image of top management. Therefore, in developing and emerging countries, where power distance is an acceptable practice, there is strong incentive for firm managers to misclassify core expenses into special items to help them maintain their desired image. On the contrary, the results indicate a positive but insignificant relationship between POWDSPI and UNEXP_CE for the developed countries sub-sample. This is understandable, because of the low power distance culture in western countries (Hofstede et al., 2010). In general, power distance is positively related to classification shifting, but the effect is noticeable and significant in developing and emerging countries, where power distance is high.

Table 4.13: Regression of Power Distance Cultural Scores and Classification Shifting

Dependent Variable: UNEXP_CE				
	(1)	(2)	(3)	(4)
VARIABLES	Full Sample	Developed	Emerging	Developing
SPITEM	0.238***	0.581**	0.296***	0.824**
	(4.154)	(2.326)	(5.663)	(2.350)
POWDIS	0.020**	0.018*	0.011**	0.019***
	(2.278)	(1.758)	(2.098)	(4.300)
POWDSPI	0.063***	0.042	0.045**	0.065***
	(4.362)	(1.467)	(2.255)	(4.482)
SIZE	-0.063***	-0.055***	-0.018***	-0.014**
	(-7.203)	(-6.886)	(-5.016)	(-2.173)
ROA	-0.089***	-0.073***	-0.065***	-0.037**
	(-3.304)	(-3.521)	(-5.272)	(-2.332)
MBV	-0.001	-0.002	-0.001	-0.002
	(-1.460)	(-1.092)	(-1.161)	(-0.644)
LEV	0.387***	0.151***	0.665***	0.402***
	(5.475)	(4.935)	(4.281)	(6.766)
BIG4	-0.029**	-0.054***	-0.053***	-0.033**
	(-2.425)	(-3.788)	(-6.147)	(-2.100)
CAPINTEN	0.306***	0.293***	0.319***	0.013*
	(5.333)	(9.166)	(5.504)	(1.745)
GROWTH	0.005***	0.057***	0.058***	0.034***
	(3.577)	(3.883)	(6.179)	(5.986)
RELINT	-0.096**	-0.048*	-0.072**	-0.055***
	(-2.169)	(-1.791)	(-2.362)	(-3.149)
GDP PER CAPITA	-0.593	-0.256	-0.715	-0.695
	(-0.515)	(-0.732)	(-0.256)	(-0.130)
CONSTANT	0.202*	0.959	0.134	0.205
	(1.645)	(1.237)	(1.297)	(1.543)
Observations	254916	137884	112023	5009
R-squared	0.21	0.22	0.37	0.41
Country Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Breusch-Pagan	3362.73	3073.28	2746.27	1751.74
P-Value	(0.7178)	(0.6527)	(0.6334)	(0.6118)
Kolmogorov-Smirnov	658.74	614.52	603.15	812.34
P-Value	(0.3412)	(0.3274)	(0.3289)	(0.3815)
Wooldridge Test	124.29	165.21	194.75	106.42
P-Value	(0.3137)	(0.3353)	(0.3934)	(0.3107)

Notes: *,** and *** are used in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. Co-efficient estimates and t-statistics (in brackets) are shown in the table. All variables are defined in Table 4.3 above.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 POWDIS + + \beta_3 POWDIS\ x\ SPITEM + \beta_4 SIZE + \beta_5 LEV + \beta_6 ROA + \beta_7 MBV + \beta_8 BIG4 + \beta_9 CAPINTEN + \beta_{10} GROWTH + \beta_{11} RELINT + \beta_{12} GDP + Year\ Fixed\ Effects + Country\ Fixed\ Effects$$

Table 4.14: Regression of Individualism Cultural Scores and Classification Shifting

Dependent Variable: UNEXP_CE				
	(1)	(2)	(3)	(4)
VARIABLES	Full Sample	Developed	Emerging	Developing
SPITEM	0.684***	0.393***	0.964***	0.176***
	(6.778)	(2.847)	(5.084)	(3.089)
INDIV	-0.061**	-0.076***	-0.047*	0.022
	(-2.419)	(-3.146)	(-1.757)	(1.528)
INDIVSPI	-0.038***	-0.011***	-0.058*	0.066*
	(-6.642)	(-3.208)	(-1.766)	(1.707)
SIZE	-0.063***	-0.052***	-0.018***	-0.013***
	(-7.199)	(-6.924)	(-5.025)	(-4.160)
ROA	-0.087***	-0.074***	-0.068***	0.037***
	(-7.233)	(-3.553)	(-5.341)	(-3.336)
MBV	-0.001	-0.002	-0.001	-0.002
	(-1.450)	(-1.066)	(-1.222)	(-0.645)
LEV	0.387***	0.152***	0.664***	0.404***
	(5.433)	(4.970)	(4.208)	(6.805)
BIG4	-0.028**	-0.050***	-0.048***	-0.031**
	(-2.427)	(-3.780)	(-6.112)	(-2.100)
CAPINTEN	0.306***	0.294***	0.317***	0.014*
	(5.341)	(9.198)	(5.445)	(1.755)
GROWTH	0.005***	0.056***	0.059***	0.133***
	(3.598)	(3.834)	(6.255)	(5.967)
RELINT	-0.049**	-0.045	-0.011**	-0.069***
	(-2.179)	(-1.496)	(-2.200)	(-3.729)
GDP PER CAPITA	-0.613	-0.216	-0.647	-0.776
	(-0.519)	(-0.728)	(-0.097)	(-0.146)
CONSTANT	0.356	0.407	0.977	0.200
	(1.009)	(1.230)	(1.137)	(1.544)
Observations	254916	137884	112023	5009
R-squared	0.21	0.22	0.38	0.41
Country Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Breusch-Pagan	3426.45	2645.86	2569.52	1751.74
P-Value	(0.7241)	(0.6732)	(0.6645)	(0.6118)
Kolmogorov-Smirnov	646.42	632.26	629.57	759.37
P-Value	(0.3458)	(0.3274)	(0.3237)	(0.3564)
Wooldridge Test	123.38	129.23	137.94	104.23
P-Value	(0.2313)	(0.2347)	(0.2942)	(0.2104)

Notes: The study use *,**,*** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The study shows co-efficient estimates and t-statistics (in brackets). All variables are defined in Table 4.3 above.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 INDIV + + \beta_3 INDIV \times SPITEM + \beta_4 SIZE + \beta_5 LEV + \beta_6 ROA + \beta_7 MBV + \beta_8 BIG4 + \beta_9 CAPINTEN + \beta_{10} GROWTH + \beta_{11} RELINT + \beta_{12} GDP + Year\ Fixed\ Effects + Country\ Fixed\ Effects$$

Table 4.15: Regression of Uncertainty Avoidance Scores and Classification Shifting

	Dependent Variable: UNEXP_CE			
	(1)	(2)	(3)	(4)
VARIABLES	Full Sample	Developed	Emerging	Developing
SPITEM	0.492***	0.111***	0.702***	0.829***
	(7.796)	(2.637)	(11.402)	(2.716)
UNCAVO	0.023**	0.028**	0.031***	0.027**
	(2.389)	(2.057)	(3.054)	(2.403)
UNCAVSPI	0.059***	0.038**	0.078***	0.033**
	(7.665)	(2.233)	(9.838)	(2.237)
SIZE	-0.063***	-0.052***	-0.018***	-0.014
	(-7.103)	(-6.896)	(-4.909)	(-1.210)
ROA	-0.085***	-0.073***	-0.055***	-0.034*
	(-3.138)	(-3.512)	(-4.954)	(-1.706)
MBV	-0.001	-0.002	-0.001	0.002
	(-1.528)	(-1.096)	(-1.164)	(0.705)
LEV	0.389***	0.150***	0.674***	0.415***
	(5.541)	(4.929)	(4.720)	(7.023)
BIG4	-0.026**	-0.053***	-0.048***	-0.032**
	(-2.387)	(-3.707)	(-6.133)	(-2.100)
CAPINTEN	0.308***	0.295***	0.322***	0.014*
	(5.347)	(9.174)	(5.528)	(1.748)
GROWTH	0.010***	0.059***	0.062***	0.035***
	(3.582)	(3.895)	(6.184)	(5.988)
RELINT	-0.087**	-0.072	-0.086**	-0.071***
	(-2.159)	(-1.484)	(-2.358)	(-3.130)
GDP PER CAPITA	-0.597	-0.315	-0.645	-0.122
	(-0.516)	(-0.738)	(-0.246)	(-0.211)
CONSTANT	0.420	0.588	0.167	0.260
	(1.010)	(1.245)	(1.278)	(1.600)
Observations	254916	137884	112023	5009
R-squared	0.21	0.22	0.38	0.43
Country Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Breusch-Pagan	3266.23	2378.14	2298.23	1821.42
P-Value	(0.6819)	(0.6678)	(0.6567)	(0.6257)
Kolmogorov-Smirnov	465.26	473.52	426.71	575.32
P-Value	(0.2443)	(0.2742)	(0.2376)	(0.2642)
Wooldridge Test	126.31	128.37	143.44	116.23
P-Value	(0.2139)	(0.2347)	(0.3194)	(0.2209)

Notes: The study use *,**,*** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The study shows co-efficient estimates and t-statistics (in brackets). All variables are defined in Table 4.3 above.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 UNCAVO + + \beta_3 UNCAV\ x\ SPITEM + \beta_4 SIZE + \beta_5 LEV + \beta_6 ROA + \beta_7 MBV + \beta_8 BIG4 + \beta_9 CAPINTEN + \beta_{10} GROWTH + \beta_{11} RELINT + \beta_{12} GDP + Year\ Fixed\ Effects + Country\ Fixed\ Effects$$

To test Hypothesis 2b, model 6 is run to examine the relationship between individualism cultural dimensions scores (INDIV) and unexpected core earnings (UNEXP_CE), as well as the interactive term between INDIV X SPITEM (INDIVSPI) and (UNEXP_CE). The variable of interest is INDIVSPI and a negative relationship is predicted between INDIVSPI and UNEXP_CE, in line with previous studies (Callen et al., 2011; Han et al, 2010). Table 4.14 presents the results for the full sample and sub-samples. The results indicate that the coefficient on individualism (INDIV and INDIVSPI) is negative and significantly related to classification shifting in developed (99% confidence level) and emerging (90% confidence level) countries, but positive and significant at the 10% level in developing countries. This suggests that classification shifting is mitigated by the individualism cultural dimension in developed and emerging countries. In other words, misclassifying core expenses into special items is more likely to be accepted in low individualism countries than high individualism ones. Hofstede et al. (2010) indicate that individualism prevails in developed and Western countries, while collectivism (low individualism) tends to prevail in Africa, Asia and Eastern European countries. In addition, the results suggest that countries that score high on individualism have no incentive to engage in misclassification, while the converse is true for countries that score low. Hofstede et al. (2010) observe that low individualism countries have strong family ties and networks, which make them susceptible to corruption and earnings management; however, high individualism cultures have loose ties, and everyone is expected to look after themselves and their immediate family only. The findings are consistent with Callen et al. (2011) and Desender et al. (2007), who observe a negative relationship between high individualism and accrual-based earnings management.

To test hypothesis 2c, model 7 is run to assess the relationship between uncertainty avoidance and classification shifting. Uncertainty avoidance shows the degree of uncertainty and the extent to which individuals are affected by the unknown (Han et al., 2010; Richardson et al., 2008). The variable of interest is UNCAVSPI, and a positive relationship is predicted between UNCAVSPI and UNEXP_CE, in line with previous studies (Callen et al., 2011; Richardson et al, 2010). Table 4.15 presents the results of the full sample, and the developed, emerging and developing country sub-samples. For all the sub-samples, the results indicate that the coefficient on UNCAVSPI is positive and significantly related to UNEXP_CE at 1% and 5% levels for emerging, developed and developing countries respectively. The results suggest that uncertainty prevails in all the countries in the sub-samples, and that the higher the uncertainty, the higher the misclassification of core expenses to boost reported core earnings. The results are consistent with Hofstede et al. (2010), who find that uncertainty scores are higher in Eastern, Central European and Latin countries, but lower in English-speaking and Chinese culture ones. The positive relationship between UNCAVSPI and UNEXP_CE is consistent with the findings of previous research (Callen et al, 2011; Richardson, 2008).

Table 4.16: Regression of Masculinity Cultural Scores and Classification Shifting

Dependent Variable: UNEXP_CE				
	(1)	(2)	(3)	(4)
VARIABLES	Full Sample	Developed	Emerging	Developing
SPITEM	0.348***	0.530**	0.914***	0.457**
	(3.275)	(2.288)	(6.927)	(2.486)
MASCU	0.022*	0.013	0.015*	0.012*
	(1.789)	(1.606)	(1.725)	(1.742)
MASCUSPI	0.031**	0.014*	0.018**	0.017**
	(2.311)	(1.769)	(2.387)	(2.229)
SIZE	-0.063***	-0.062***	-0.018***	-0.014**
	(-7.168)	(-6.947)	(-4.895)	(-2.203)
ROA	-0.088***	-0.073***	-0.056***	-0.035
	(-7.264)	(-3.518)	(-5.194)	(-1.323)
MBV	-0.001	-0.002	-0.001	-0.002
	(-1.469)	(-1.066)	(-1.181)	(-0.637)
LEV	0.388***	0.152***	0.666***	0.409***
	(5.478)	(4.970)	(4.326)	(6.916)
BIG4	-0.029**	-0.055***	-0.054***	-0.033**
	(-2.287)	(3.741)	(-6.121)	(-2.232)
CAPINTEN	0.305***	0.294***	0.318***	0.030
	(5.318)	(9.213)	(5.487)	(0.588)
GROWTH	0.006*	0.078***	0.019**	0.031**
	(1.762)	(3.798)	(2.129)	(2.345)
RELINT	-0.082**	-0.044	-0.090**	-0.032***
	(-2.125)	(-1.461)	(-2.205)	(-3.093)
GDP PER CAPITA	-0.681	-0.081	-0.631	-0.012
	(-0.532)	(-0.714)	(-0.094)	(-0.190)
CONSTANT	0.059	0.281	0.603	0.753
	(1.001)	(1.228)	(1.130)	(1.586)
Observations	254916	137884	112023	5009
R-squared	0.21	0.22	0.38	0.42
Country Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Breusch-Pagan	3125.88	2189.72	2124.39	1678.25
P-Value	(0.6744)	(0.6281)	(0.6179)	(0.6027)
Kolmogorov-Smirnov	243.29	276.37	263.18	257.26
P-Value	(0.2378)	(0.2429)	(0.2234)	(0.2417)
Wooldridge Test	124.63	126.72	134.52	118.27
P-Value	(0.2137)	(0.2276)	(0.3242)	(0.2232)

Notes: *,** and *** are used in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The table shows co-efficient estimates and t-statistics (in brackets). All variables are defined in Table 4.3 above.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 MASCU + + \beta_3 MASCU \times SPITEM + \beta_4 SIZE + \beta_5 LEV + \beta_6 ROA + \beta_7 MBV + \beta_8 BIG4 + \beta_9 CAPINTEN + \beta_{10} GROWTH + \beta_{11} RELINT + \beta_{12} GDP + Year\ Fixed\ Effects + Country\ Fixed\ Effects$$

To test Hypothesis 2d, model 8 is run to examine the relationship between masculinity (MASCU) scores and classification shifting. Earlier studies (Callen et al., 2011; Hofstede et al., 2010) indicate that high masculinity countries are associated with high masculine

work roles, control, power, assertiveness, and striving for achievement in terms of ego boosting and wealth recognition.

Table 4.17: Regression of Long-term Orientation Scores and Classification Shifting

Dependent Variable: UNEXP_CE				
	(1)	(2)	(3)	(4)
VARIABLES	Full Sample	Developed	Emerging	Developing
SPITEM	0.957***	0.191**	0.601***	0.357**
	(3.275)	(2.427)	(3.216)	(2.086)
LONGTEO	-0.122**	-0.213	-0.143**	0.120
	(-2.189)	(-0.736)	(-2.125)	(1.460)
LONGTSPI	-0.570***	-0.203	-0.170***	0.756*
	(-3.549)	(-0.897)	(-5.484)	(1.697)
SIZE	-0.063***	-0.055***	-0.018***	-0.014
	(-7.187)	(-6.920)	(-5.045)	(-1.181)
ROA	-0.089***	-0.075***	-0.059***	-0.138**
	(-7.274)	(-3.560)	(-5.105)	(-2.347)
MBV	-0.001	-0.002	-0.001	0.002
	(-1.466)	(-1.066)	(-1.156)	(0.599)
LEV	0.388***	0.151***	0.667***	0.405***
	(5.486)	(4.956)	(4.379)	(6.860)
BIG4	-0.025***	-0.056***	-0.058***	-0.133*
	(-2.659)	(-3.836)	(-6.141)	(-1.742)
CAPINTEN	0.306***	0.293***	0.321***	0.027
	(5.358)	(9.192)	(5.502)	(1.520)
GROWTH	0.015***	0.056***	0.058***	0.133***
	(3.559)	(3.836)	(6.141)	(5.942)
RELINT	-0.087**	-0.048*	-0.092**	-0.036***
	(-2.187)	(-1.766)	(-2.245)	(-3.103)
GDP PER CAPITA	-0.660	-0.178	-0.952	-0.887
	(-0.528)	(-0.724)	(-0.142)	(-0.166)
CONSTANT	0.138	0.485	0.269	0.242
	(1.003)	(1.231)	(1.182)	(1.572)
Observations	254916	137884	112023	5009
R-squared	0.21	0.22	0.37	0.41
Country Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Breusch-Pagan	3541.19	2696.23	2347.52	1785.64
P-Value	(0.6479)	(0.6321)	(0.6239)	(0.6109)
Kolmogorov-Smirnov	433	234	331	546
P-Value	(0.4132)	(0.2178)	(0.3210)	(0.6112)
Wooldridge Test	86.41	143.37	228.24	287.97
P-Value	(0.2363)	(0.2816)	(0.3234)	(0.4125)

Notes: The study use *,**,*** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The study shows co-efficient estimates and t-statistics (in brackets). *SPITEM* = income-decreasing special items scaled by sales, LONGTEO is long-term orientation score from Tang and Koveos (2008). MASCUSPI is masculinity score multiply by income-decreasing special items (LONGTEO x SPITEM). SIZE is the natural log of the market value of equity; LEV is measured as total debts scaled by total assets. CAPINTEN is capital intensity measured as the ratio of long-term assets scaled by total assets. ROA is measured as net income before extraordinary items + interest

income divided by total assets at the beginning of the period and MBV is measured as natural log of book value of equity scaled by market value of equity. GROWTH calculated as market value of outstanding shares at the end of the year scaled by book value of common equity at the end of the year. RELINT is country-wide level of religiosity measured by World Values Survey of the World Bank (Callen et al., 2011). All variables are defined in Table 4.3 above.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 LONGTEO + + \beta_3 LONGTEO\ x\ SPITEM + \beta_4 SIZE + \beta_5 LEV + \beta_6 ROA + \beta_7 MBV + \beta_8 BIG4 + \beta_9 CAPINTEN + \beta_{10} GROWTH + \beta_{11} RELINT + \beta_{12} GDP + Year\ Fixed\ Effects + Country\ Fixed\ Effects$$

Table 4.16 presents the results of the full sample and sub-samples. The variable of interest is MASCUSPI and a positive relationship is predicted between MASCUSPI and UNEXP_CE, in line with previous studies (Callen et al., 2011; Hofstede et al, 2010). The results indicate that for both developing and emerging countries, there is a positive and significant relationship at the 5% level between MASCUSPI and UNEXP_CE. The coefficient on MASCUSPI is positive and significantly related to UNEXP_CE at the 10% level for developed countries. The results therefore suggest that masculinity is higher in developing and emerging countries than developed ones, which is consistent with Hofstede et al.'s (2010) findings. The higher the masculinity, the higher the incentive to misclassify core expenses to special items to gain control, power, recognition and wealth. Hofstede et al. (2010) observe that masculinity is high in Africa, Japan, Italy, Mexico, and in German-speaking countries; moderately high in English-speaking Western countries and the Netherlands, but low in Latin and Asian countries such as France, Spain, Portugal, Chile, Korea and Thailand. In general, masculinity is positively related to classification shifting and the effect is significant in both the developing and emerging country sub-samples, at 5%.

Table 4.18: Regression of Hofstede's Cultural Variables and Classification Shifting

	Dependent Variable: UNEXP_CE			
	(1)	(2)	(3)	(4)
VARIABLES	Full Sample	Developed	Emerging	Developing
SPITEM	0.478***	0.302***	0.232**	0.317**
	(5.661)	(4.498)	(2.473)	(2.052)
POWDIS	0.019**	0.017*	0.010**	0.017***
	(2.271)	(1.752)	(2.091)	(4.187)
POWDSPI	0.065**	0.084*	0.046**	0.067***
	(2.287)	(1.760)	(2.127)	(4.382)
INDIV	-0.032**	-0.018**	-0.047	0.020
	(-2.020)	(-2.146)	(-1.517)	(1.527)
INDIVSPI	-0.085***	-0.046***	-0.038*	0.046*
	(-2.941)	(-3.554)	(-1.739)	(1.714)
MASCU	0.020*	0.012	0.013*	0.011*
	(1.780)	(1.600)	(1.723)	(1.740)
MASCUSPI	0.025**	0.014**	0.036**	0.073*
	(2.016)	(2.315)	(2.549)	(1.776)
UNCAVO	0.020**	0.024**	0.023***	0.025**
	(2.312)	(2.005)	(3.001)	(2.377)
UNCAVSPI	0.034***	0.079***	0.072***	0.065**
	(7.875)	(3.677)	(7.958)	(2.449)
LONGTEO	-0.022**	-0.013	-0.043**	0.020
	(-2.104)	(-0.686)	(-2.187)	(1.448)
LONGTSPI	-0.053**	-0.075	-0.019***	0.022*
	(-2.450)	(-0.909)	(-4.301)	(1.785)
SIZE	-0.063***	-0.058***	-0.017***	-0.014
	(-7.036)	(-6.814)	(-4.885)	(-1.215)
ROA	-0.085***	-0.275***	-0.558***	-0.173*
	(-7.175)	(-3.564)	(-5.077)	(-1.703)
MBV	-0.002	-0.002	-0.001	0.001
	(-1.573)	(-1.096)	(-1.348)	(0.527)
LEV	0.387***	0.148***	0.675***	0.378***
	(5.456)	(4.835)	(-4.791)	(6.381)
BIG4	-0.027***	-0.056***	-0.059***	-0.132*
	(-3.754)	(-3.792)	(-6.264)	(-1.741)
CAPINTEN	0.309***	0.295***	0.325***	0.018
	(5.493)	(9.252)	(5.844)	(0.356)
GROWTH	0.008***	0.056***	0.059***	0.032***
	(3.754)	(3.792)	(6.264)	(5.941)
RELINT	-0.065**	-0.032*	-0.071**	-0.028***
	(-2.118)	(-1.760)	(-2.192)	(-3.047)
GDP PER CAPITA	-0.408	-0.948	-0.754	-0.325
	(-0.478)	(-0.701)	(-0.262)	(-0.251)
CONSTANT	0.836	0.798	0.338	0.779
	(1.046)	(1.210)	(1.301)	(1.619)
Observations	254916	137884	112023	5009
R-squared	0.22	0.23	0.40	0.62
Country Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Breusch-Pagan	3461.32	2643.71	2476.83	1829.73
P-Value	(0.7296)	(0.6548)	(0.6356)	(0.6254)
Kolmogorov-Smirnov	434.18	236.31	321.64	504.93
P-Value	(0.4136)	(0.2180)	(0.3201)	(0.5612)
Wooldridge Test	89.42	150.74	241.42	423.31
P-Value	(0.2374)	(0.2989)	(0.3306)	(0.5103)

Notes: The study use *,**,*** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The study shows co-efficient estimates and t-statistics (in brackets). All cultural variables are defined in Table 4.3 above.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 POWDIS + \beta_3 POWDIS \times SPITEM + \beta_4 INDIV + \beta_5 INDIV \times SPITEM + \beta_6 UNCAVO + \beta_7 UNCAV \times SPITEM + \beta_8 MASCU + \beta_9 MASCU \times SPITEM + \beta_{10} LONGTEO + \beta_{11} LONGTEO \times SPITEM + \beta_{12} SIZE + \beta_{13} LEV + \beta_{14} ROA + \beta_{15} MBV + \beta_{16} BIG4 + \beta_{17} CAPINTEN + \beta_{18} GROWTH + \beta_{19} RELINT + \beta_{20} GDP + Year\ Fixed\ Effects + Country\ Fixed\ Effects$$

Table 4.17 provides the results examining the relationship between long-term orientation and classification shifting. Equation 9 is run to test hypothesis 2e and the variable of interest is LONGTSPI. A negative relationship is predicted between LONGTSPI and UNEXP_CE if countries are long-term oriented, otherwise positive. The results in Table 4.17 indicate that the coefficient on UNEXP_CE is negative and significant at the 1% level (-0.170, t-value; -5,484), related to LONGTSPI in the emerging country sub-sample. There is also a negative but insignificant relationship between UNEXP_CE and LONGTSPI in the developed country sub-sample. On the contrary, there is a positive relationship at the 10% significance level between UNEXP_CE and LONGTSPI in the developing country sub-sample. The coefficient on UNEXP_CE is positive (0.756, t-value, 1.697). The negative relationship suggests that in both the developed and emerging sub-samples, some countries are long-term oriented. Therefore, they are not focussed on current earnings or are quick results-oriented, but are cautious, careful with resources and focussed on long-term goals. This is consistent with previous studies (Callen et al. 2011; Hofstede et al., 2010), which observe that countries in East and South Asia, as well as Europe, are long- or medium-term oriented. It is further observed that the U.S.A and Australia, and Latin American, African and Muslim countries are short-term results-oriented. The positive relationship noted in the developing country sub-sample confirms the findings of previous studies (Hofstede et al., 2010) that developing countries are short-term oriented and seek quick earnings through

misclassification. There is therefore an incentive to engage in classification shifting to influence reported core earnings in short-term oriented countries.

Table 4.18 shows the summary position of the relationship between Hofstede's cultural dimension scores and classification shifting. Initially, only POWDSPI is included in the model, followed by INDIVSPI, and subsequently UNCAVSPI is added, until all the cultural dimension scores are included. The study controls for countrywide religiosity (RELINT) and firm-level control variables, as discussed in the methodology. The results are consistent with those provided in Tables 4.13 to 4.17. In particular, the coefficients on INDIVSPI and LONGTSPI are negative and significant at 1% or 5% in relation to UNEXP_CE in the developed or emerging country sub-samples respectively. There is still a positive and significant relationship between INDIVSPI, LONGTSPI and UNEXP_CE in developing countries, suggesting that they are short-term results-oriented and low on individualism. Table 4.18 also shows that POWDSPI, UNCAVSPI and MASCUSPI are positively related to UNEXP_CE at different levels of significance (1%, 5% and 10%). This confirms the findings that countries with cultural dimensions of power distance, uncertainty avoidance and masculinity have the incentive to misclassify core expenses into special items in order to influence reported core earnings. In summary, the study shows that countrywide culture affects classification shifting. However, whether the impact is positive or negative depends on the country and the associated Hofstede cultural dimension scores in that country (Callen et al., 2011).

4.5.4. Testing the Relationship between Legal Environment and Classification Shifting

To test hypotheses 3a and 3b, the relationship between legal environment (LEGALENF), interactions between the legal environment and special items (LEGALSPI) and classification shifting (UNEXP_CE); interactions between the legal environment and countrywide culture (LEGALCUL); interactions between the legal environment and countrywide religiosity (LEGALREL); and classification shifting (UNEXP_CE) are first tested. Table 4.19 shows the results of the relationship between LEGALSPI and UNEXP_CE for the full and sub-samples. As indicated below, the relationship between LEGALSPI and UNEXP_CE in the developing country sub-sample is negative but not significant (-0.058, t-value; -1.529). The coefficients on UNEXP_CE for both emerging (-0.055, t-value; -1.729) and developed (-0.069, t-value; -2.276) sub-samples are also negative and significant at 10% and 5% respectively. The results suggest that the countrywide legal environment subdues misclassification of core expenses into special items; however, the impact is greater in developed and emerging countries. The findings from this study are consistent with earlier studies (Behn et al., 2013; Haw et al., 2011; Leuz et al., 2003; La Porta et al., 1998), which observe that a strong legal environment and investor protection mitigate classification shifting and accrual-based earnings management. However, the results contradict those of Callen et al. (2011), who find no relationship between legal environment and accrual-based earnings management. The results further suggest that the legal environment in developing countries is weak, hence the insignificant negative relationship between LEGALSPI and UNEXP_CE. The converse is true for the developed and emerging country sub-samples, as evidenced by previous studies (Behn et al., 2013; Haw et al., 2011; Leuz et al., 2003).

Table 4.19: Regression of Countrywide Legal Environment and Classification Shifting

	Dependent Variable: UNEXP_CE			
	(1)	(2)	(3)	(4)
VARIABLES	Full sample	Developed	Emerging	Developing
SPITEM	0.647***	0.974***	0.338**	0.195**
	(4.596)	(2.737)	(2.188)	(2.479)
LEGALENF	-0.015**	-0.063*	-0.011	-0.010
	(-1.728)	(-1.764)	(-0.846)	(-0.967)
LEGALxSPI	-0.093**	-0.069**	-0.055*	-0.058
	(-2.397)	(-2.276)	(-1.729)	(-1.529)
SIZE	-0.063***	-0.105***	-0.018***	-0.014
	(-7.227)	(-6.845)	(-4.983)	(-1.242)
ROA	-0.088***	-0.075***	-0.064***	-0.046**
	(-3.257)	(-3.580)	(-5.223)	(-2.423)
MBV	-0.001	-0.002	-0.001	-0.002
	(-1.532)	(-1.092)	(-1.117)	(-0.660)
LEV	0.383***	0.149***	0.664***	0.384***
	(5.256)	(4.866)	(4.226)	(6.417)
BIG4	-0.026**	-0.057***	-0.058***	-0.036**
	(-2.343)	(3.864)	(-6.152)	(-2.102)
CAPINTEN	0.025***	0.093***	0.032***	0.012*
	(5.299)	(9.173)	(5.399)	(1.740)
GROWTH	0.007***	0.082***	0.021**	0.034***
	(3.877)	(3.804)	(2.299)	(3.448)
RELINT	-0.045*	-0.034	-0.064*	-0.037**
	(-2.018)	(-0.976)	(-1.792)	(-2.232)
CULTURE	-0.082	-0.829	-0.976	-0.004
	(-0.201)	(-0.056)	(-0.197)	(-0.222)
GDP PER CAPITA	-0.064	-0.091	-0.051	-0.023
	(-0.523)	(-0.815)	(-0.982)	(-0.173)
CONSTANT	0.729	0.690	0.253	0.877
	(1.067)	(1.366)	(1.142)	(1.554)
Observations	254916	137884	112023	5009
R-squared	0.21	0.22	0.37	0.43
Country Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Breusch-Pagan	4469.57	3634.31	2488.28	1798.48
P-Value	(0.7687)	(0.6683)	(0.6465)	(0.6349)
Kolmogorov-Smirnov	434.21	223.37	347.33	458.49
P-Value	(0.4134)	(0.2415)	(0.3638)	(0.5761)
Wooldridge Test	81.41	132.78	246.21	418.32
P-Value	(0.2186)	(0.2628)	(0.3346)	(0.4513)

Notes: *,** and *** are used in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The table shows co-efficient estimates and t-statistics (in brackets). All variables are defined in Table 4.3 above.

$$UNEXP\_CE = \beta_0 + \beta_1\, SPITEM + \beta_2 LEGALENF + \beta_3\, LEGALENF\ x\ SPITEM + \beta_4\, SIZE + \beta_5\, BMV + \beta_6 LEV + \beta_7 BIG4 + \beta_8 ROA + + \beta_9 GROWTH + \beta_{10}\, CAPINTEN + \beta_{11} GDP + \beta_{12} CULTURE + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,}$$

Table 4.20 presents the regression results to further establish the impact of both legal environment and culture on classification shifting; hypothesis 3a is tested and model 11 run, as discussed in the methodology section. The LEGAL, CULTURE and SPITEM variables are interacted to assess their impact on UNEXP_CE. The variable of interest is LEG x CUL x SPI. The variable CULTURE is computed as the simple mean of the aggregate of all the five cultural dimension variables, in line with Callen et al. (2011). Indeed, the analyses above have shown that the countrywide legal environment and cultural dimension variables impact negatively and/or positively on managers' motivation to misclassify core expenses into special items in the full and sub-samples for developed, emerging and developing countries. In particular, the coefficient on SPITEM is still positive and related to UNEXP_CE at the 1% significance level across all the samples in the analysis. Similar to the results in Table 4.19, the coefficient on LEGALSPI is negative and significant at 5% and 10% for the developed and emerging country sub-samples respectively. The co-efficient on LEGALSPI is negative, but not significant (-0.890; t-value; -1.575) for the developing country sub-sample, suggesting that there is a weak legal environment in developing countries. Conversely, there is a strong and robust legal environment in both developed and emerging countries to curtail classification shifting behaviour. This finding is consistent with previous studies (Behn et al., 2013; Leuz et al., 2003, La Porta et al., 1998), which observe that investor confidence is high and classification shifting is low in developed countries due to their strong legal environments. In addition, CULSPI (CULTURE x SPITEM) is negatively associated with UNEXP_CE at 5% and 10% levels of significance in developed and emerging countries respectively. The negative relationship between CULSPI and UNEXP_CE supports the evidence that both legal environment and culture mitigate misclassification of core expenses in both developed

and emerging economies. However, CULSPI is positively related to UNEXP_CE at the 10% significance level, suggesting that the dominant culture (POWDIS and UNCAVO) in developing countries provides an incentive or motivation for managers to engage in misclassification of core expenses into special items, hence the positive relationship between CULSPI and UNEXP_CE in the developing country sub-sample.

The results in Table 4.20 also show that in the developed country sub-sample, the coefficient on LEGxCULxSPI is negative (-0.698, t-value; 3,430) and significant at the 99% confidence level. This shows that LEGxCULxSPI is negatively related to UNEXP_CE. Similarly, the coefficient on LEGxCULxSPI for both the emerging and developing country sub-samples shows a negative coefficient, but is related to UNEXP_CE at the 10% significance level. This suggests that culture complements the legal environment and that the effect is much more pronounced in developed countries than developing and emerging ones. For example, in the developed country sub-sample, the coefficient on LEGALSPI without culture is (-0.453, t-value; -3.198), compared with the coefficient on LEGxCULxSPI (-0.698, t-value; 3.430). The inclusion of culture as an interactive variable slightly changes the coefficient from -0.453 to -0.698 for developed countries. Indeed, the coefficient on LEGALSPI in developing countries is negative but not significant, however, when the study interacts culture and special items with legal environment, the results show that LEGxCULxSPI is still negative (-0.991, t-value;

Table 4.20: Regression of Legal Environment, Culture and Classification Shifting

Dependent Variable: UNEXP_CE				
	(1)	(2)	(3)	(4)
VARIABLE**S**	Full Sample	Developed	Emerging	Developing
SPITEM	0.396***	0.615***	0.182**	0.922*
	(6.630)	(3.087)	(2.363)	(1.739)
LEGALENF	-0.014**	-0.060*	-0.010	-0.010
	(-1.726)	(-1.761)	(-0.842)	(-0.967)
CULSPI	-0.983***	-0.268**	-0.020*	0.853*
	(-3.127)	(-2.307)	(-1.767)	(1.763)
LEGALxSPI	-0.215***	-0.453**	-0.633*	-0.890
	(-6.789)	(-2.198)	(-1.703)	(-1.575)
LEGxCULxSPI	-0.293***	-0.698***	-0.160*	-0.991*
	(-7.292)	(-3.430)	(-1.739)	(-1.698)
SIZE	-0.063***	-0.105***	-0.018***	-0.016
	(-7.200)	(-6.793)	(-5.102)	(-1.387)
ROA	-0.087***	-0.273***	-0.566***	0.149
	(-7.236)	(-3.512)	(-5.276)	(1.457)
MBV	-0.002	-0.002	-0.001	0.002
	(-1.606)	(-1.113)	(-1.226)	(0.649)
LEV	0.382***	0.147***	0.664***	0.389***
	(6.175)	(4.803)	(4.204)	(6.492)
BIG4	-0.027**	-0.053***	-0.058***	-0.137*
	(-2.432)	(-3.687)	(-4.125)	(-1.748)
CAPINTEN	0.305***	0.292***	0.318***	0.022
	(15.320)	(9.161)	(15.457)	(0.430)
GROWTH	0.036**	0.057*	0.059**	0.136**
	(2.288)	(1.856)	(2.243)	(2.075)
RELINT	-0.035***	-0.026	-0.183**	-0.228***
	(-3.293)	(-1.430)	(-2.239)	(-4.866)
GDPTOTAL	-0.271	-0.168	-0.538	-.901
	(-0.620)	(-0.907)	(-0.077)	(-0.728)
CONSTANT	0.853	0.531	0.158*	0.602*
	(1.013)	(1.271)	(1.839)	(1.872)
Observations	254916	137884	112023	5009
R-squared	0.22	0.23	0.38	0.47
Country Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Breusch-Pagan	4241.92	3374.55	2474.16	1733.43
P-Value	(0.7498)	(0.6563)	(0.6349)	(0.6114)
Kolmogorov-Smirnov	417.62	234.27	335.23	143.39
P-Value	(0.4238)	(0.2281)	(0.3413)	(0.1223)
Wooldridge Test	85.38	150.76	244.20	108.91
P-Value	(0.2177)	(0.2880)	(0.3144)	(0.2113)

Notes: The study use *,**,*** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The study shows co-efficient estimates and t-statistics (in brackets). All variables are defined in Table 4.3 above.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 LEGALENF + \beta_3 LEGALENF \times SPITEM + \beta_4 LEGALENF \times CULTURE + \beta_5 LEGALENF \times CULTURE \times SPITEM + \beta_6 SIZE + \beta_7 BMV + \beta_8 LEV + \beta_9 BIG4 + \beta_{10} ROA + + \beta_{11} GROWTH + \beta_{12} CAPINTEN + \beta_{13} GDP + \beta_{14} RELINT + Year\ Fixed\ Effects\ and\ Country\ Fixed\ Effects + \varepsilon_{t,}$$

-1.698) and significant at the 10% level, an indication that culture complements the legal environment in mitigating classification shifting behaviour in both developed and developing countries. On the contrary, the emerging country sub-sample shows 5% and 10% significance levels for LEGASPI and LEGxCULxSPI respectively. This is consistent with the findings in Tables 4.13 and 4.15, which show that emerging countries are characterised by uncertainty avoidance and power distance cultures (Hofstede et el., 2010). As observed in Tables 4.13 and 4.15, these cultures have a positive relationship with classification shifting. Therefore, in power distance and uncertainty avoidance cultural environment, the impact of LEGALENF on UNEXP_CE is less effective, suggesting a weak legal environment in emerging countries. Hence, the insignificant negative relationship. The positive relationship between POWDSPI, UNCAVSPI and UNEXP_CE accounts for the reduction in the significance level from 5% to 10% and the coefficient from -0.633 to -0.160 in the emerging country sub-sample. In a nut shell, the study finds that legal environment has negative effect on classification shifting behaviour in both developed and emerging countries but the negative impact is significant in developed countries. This is consistent with Behn et al. (2013) who observe that strong legal environment mitigate earnings management. Again, the analysis shows that culture plays a complementary role in mitigating classification shifting in developed and developing countries, especially when culture interacts with the legal environment. To further confirm the complementary role of Hofstede's cultural dimension variables in mitigating misclassification, LEGALENF and SPITEM are interacted with each of the five cultural

dimension variables to ascertain their level of significance and impact on UNEXP_CE in the developed, emerging and developing country sub-samples. The results are provided in Tables 4.21, 4.22 and 4.23 respectively.

Table 4.21 provides the regression results showing the relationship between UNEXP_CE and LEGALENF, as well as the interaction between the cultural dimension variables and SPITEM (POWDSPI, INDIVSPI, MASCUSPI, UNCAVSPI and LONGTSPI) for the developed country sub-sample. The variables of interest are POWD x LEG x SPI, INDIV x LEG x SPI, MASCU x LEG x SPI, UNCAVO x LEG x SPI and LONGT x LEG x SPI. Six separate regressions are run using the developed country sub-sample and the results are shown in columns (1) to (6). Initially, in column (1) all the variables are included in the model to assess their impact on UNEXP_CE. The results indicate that SPITEM is positively related to UNEXP_CE at 5% or 1% significance levels for each of the six columns, confirming that classification shifting exists in the developed country sub-sample. The results in column (1) also indicate that the coefficients on POWD x LEG x SPI and INDIV x LEG x SPI are negative (-0.28, t-value; -1.76 and -0.24, t-value; -1.83) and significant at the 90% confidence level. This suggests that in developed countries, the presence of power distance or individualism culture, coupled with a strong legal environment, mitigates classification shifting. Thus, both power distance and individualism cultures induce or strengthen legal environment in developed countries to subdue management classification shifting behaviour. The results in column (1) also show that MASCU x LEG x SPI, UNCAV x LEG x SPI and LONGT x LEG x SPI are negatively related to UNEXP_CE. The control variables and RELINT exhibit the expected signs and coefficients. In column (2), four of the variables of interest previously included in column

(1) are dropped and the model is run using only POWD x LEG x SPI. The results indicate that POWD x LEG x SPI is negatively related to UNEXP_CE. The coefficient POWD x LEG x SPI is negative (-0.42, t-value; -2.46) and significant at the 95% confidence level, suggesting that there is weak power distance but a strong legal environment in developed countries to subdue classification shifting. Similarly, in column (3) the model is run using only INDIV x LEG x SPI as the independent variable to establish the relationship between individualism, legal environment, special items and unexpected core earnings. The results in column (3) clearly show that the co-efficient on individualism is negative (-0.70, t-value; -3.80) and related to UNEXP_CE at the 1% significance level. This confirms the findings in tables 4.14 and 4.19, which report that individualism and legal environment mitigate misclassification of core expenses into special items in developed countries. The results in column (3) highlight the complementary role of individualism and legal environment in subduing managers' incentive to engage in shifting. In addition, the model is run using MASCU x LEG x SPI as the variable of interest. The results in column (4) reveal that this coefficient is negative (-0.10, t-value; -3.97) and significant at the 99% confidence level. This signifies that masculinity and legal environment interactions mitigate misclassification in developed countries. The results also suggest that the legal environment in developed countries has the potential to influence classification shifting negatively, relative to the positive effect of masculinity on unexpected core earnings, as shown in tables 4.19 and 4.16 respectively. The results in column (5) present an examination of the relationship between UNCAV x LEG x SPI and UNEXP_CE. Indeed, the previous results in Table 4.15 indicate that uncertainty avoidance is positively related to classification shifting, the converse is true for the legal environment. Interestingly, the interaction between uncertainty avoidance, legal environment and special items reveals that UNCAV

x LEG x SPI is negatively related to UNEXP_CE at the 1% significance level (coefficient, -0.12, t-value; -3.81). This implies that the legal environment is not induced by uncertainties in developed countries in mitigating classification shifting behaviour. Therefore, in a culture where uncertainty will influence classification shifting, such opportunistic managerial behaviour is constrained by the legal environment, perhaps due to for fear of law suits. Thus, in a strong legal environment, the positive effects often associated with uncertainty avoidance can no longer be demonstrated. In other words, the legal environment in developed countries deters misclassification, even in uncertain situations. Finally, in column (6) of Table 4.21, the study provides the regression results of the relationship between LONGT x LEG x SPI and UNEXP_CE. The previous results in Table 4.17 indicate that there is negative but insignificant association between LONGTSPI and UNEXP_CE for developed countries. As reported in column (6), the coefficient on LONGT x LEG x SPI is negative (-0.78, t-value; -2.78) and significant at the 99% confidence level. This suggests that developed countries are long-term results-oriented. The interaction between legal environment and long-term orientation serves as a disincentive for misclassification. Therefore, long-term orientation complements the legal environment in mitigating classification shifting in developed countries.

Table 4.21: Regression of Developed Countries' Legal Environment, Culture and Classification Shifting

	Dependent Variable: UNEXP_CE					
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Developed	Developed	Developed	Developed	Developed	Developed
SPITEM	0.35**	0.29***	0.23**	0.83***	0.95***	0.59***
	(2.22)	(2.92)	(2.36)	(2.72)	(3.29)	(2.69)
LEGALENF	-0.06*	-0.06*	-0.06*	-0.05*	-0.05*	-0.05*
	(-1.76)	(-1.75)	(-1.74)	(-1.72)	(-1.71)	(-1.70)
POWDIS	0.02*	0.03*				
	(1.72)	(1.76)				
POWDSPI	0.05*	0.07*				
	(1.78)	(1.85)				
POWDLEGSPI	-0.28*	-0.42**				
	(-1.76)	(-2.46)				
INDIV	-0.02**		-0.05**			
	(-1.96)		(-2.15)			
INDIVSPI	-0.03**		-0.06***			
	(-2.15)		(-3.55)			
INDIVLEGSPI	-0.24*		-0.70***			
	(-1.83)		(-3.80)			
MASCU	0.01			0.02		
	(1.50)			(1.60)		
MASCUSPI	0.01**			0.04**		
	(2.05)			(2.15)		
MASCULEGSPI	-0.22			-0.10***		
	(-1.42)			(-3.97)		
UNCAVO	0.02**				0.04**	
	(2.05)				(2.09)	
UNCAVSPI	0.07***				0.09***	
	(3.67)				(3.77)	
UNCAVLEGSPI	-0.08*				-0.02***	
	(-1.74)				(-3.81)	
LONGTEO	0.03*					0.02

	(-1.74)					(0.53)
LONGTSPI	-0.03**					0.03
	(-2.24)					(0.64)
LONGTLEGSPI	-0.06*					-0.78***
	(-1.72)					(-2.78)
SIZE	-0.05**	-0.10***	-0.11***	-0.11***	-0.10***	-0.11***
	(-2.26)	(-6.82)	(-6.87)	(-6.88)	(-6.83)	(-6.87)
ROA	-0.22**	-0.27***	-0.28***	-0.27***	-0.27***	-0.28***
	(-2.52)	(-3.55)	(-3.58)	(-3.55)	(-3.54)	(-3.58)
MBV	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
	(-1.12)	(-1.13)	(-1.09)	(-1.11)	(-1.13)	(-1.09)
LEV	0.11**	0.15***	0.15***	0.15***	0.15***	0.15***
	(2.28)	(4.81)	(4.86)	(4.82)	(4.80)	(4.86)
BIG4	-0.02*	-0.03**	-0.03**	-0.03**	-0.03**	-0.03**
	(-1.84)	(-2.24)	(-2.24)	(-2.24)	(-2.24)	(-2.24)
CAPINTEN	0.29***	0.29***	0.29***	0.29***	0.29***	0.29***
	(9.20)	(9.15)	(9.18)	(9.21)	(9.16)	(9.17)
GROWTH	0.06***	0.06***	0.06***	0.06***	0.06***	0.06***
	(3.84)	(3.89)	(3.85)	(3.80)	(3.88)	(3.86)
RELINT	-0.04	-0.05	-0.04	-0.05	-0.05	-0.04
	(-1.08)	(-1.50)	(-1.48)	(-1.49)	(-1.47)	(-1.44)
GDPTOTAL	(-0.19)	-0.35	-0.17	-0.18	-0.41	-0.17
	(-0.883)	(-0.884)	(-0.882)	(-0.882)	(-0.884)	(-0.882)
CONSTANT	0.59	0.30	0.60	0.92	0.20	0.40
	(1.13)	(1.10)	(1.07)	(1.11)	(1.12)	(1.06)
Observations	137884	137884	137884	137884	137884	137884
R-squared	0.24	0.25	0.25	0.25	0.25	0.25
Country Fixed Effects	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
Breusch-Pagan	3845.92	3234.62	3174.57	3137.59	3264.65	3114.22
P-Value	(0.6649)	(0.6503)	(0.6438)	(0.6353)	(0.6563)	(0.6401)
Kolmogorov-Smirnov	239.56	237.84	234.64	232.32	231.72	230.47
P-Value	(0.2413)	(0.2181)	(0.2085)	(0.1861)	(0.1801)	(0.1789)
Wooldridge Test	152.78	150.25	145.57	142.68	140.44	165.84

P-Value	(0.2917)	(0.2816)	(0.2798)	(0.2716)	(0.2698)	(0.3281)	

Notes: All variables are defined in Table 4.3. *,** and *** are used in a two tailed test to indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively. The table shows co-efficient estimates above and t-statistics below in brackets.

In Table 4.22, the results of the emerging country sub-sample are presented and the relationship between legal environment, cultural dimension variables, special items interactions and unexpected core earnings shown. As in Table 4.21, the variables of interests are POWD x LEG x SPI, INDIV x LEG x SPI, MASCU x LEG x SPI, UNCAVO x LEG x SPI and LONGT x LEG x SPI. Six separate regressions are run and the results presented in columns (1) to (6) indicate that SPITEM is positively related to UNEXP_CE at 95% or 99% confidence levels. In column (1), all the variables of interest are included in the model to run the regressions for the emerging country sub-sample. The results reveal that INDIV x LEG x SPI and UNCAV x LEG x SPI are negatively related to UNEXP_CE at the 1% significance level. Similarly, MASCU x LEG x SPI and LONGT x LEG x SPI are negatively related to UNEXP_CE at the 5% significance level. However, the coefficient on POWD x LEG x SP is negative, but not significant. The results in column (1) suggest that in the emerging country sub-sample, the interactions of legal environment and individualism, uncertainty avoidance, masculinity and long-term orientation cultural variables provide a strong monitoring mechanism to curb the misclassification of core expenses into special items. In column (2), the regression model is run using only POWD x LEG x SPI as an independent variable. The results indicate that the coefficient on POWD x LEG x SPI is negative (-0.41, t-value; -2.47) and significant at the 95% confidence level, confirming that power distance and legal environment in emerging countries restrain managers' motivation for classification shifting. In column (3), the relationship between INDIV x LEG x SPI and UNEXP_CE are examined. As noted in Tables 4.14 and 4.19, both individualism and legal environment are seen to be negatively associated with UNEXP_CE at the 10% significance level. However, in column (3) the results show a significant negative relationship at the 99% confidence level between INDIV x LEG x SPI

and UNEXP_CE. This suggests that the combined effects of individualism and legal environment in emerging countries have the potential to reduce classification shifting. Thus a country's legal environment could complement the culture of individualism to quell shifting or monitor managers' behaviour. In column (4), the cultural variable of masculinity interacts with legal environment and special items to examine their impact on classification shifting. As noted in Table 4.16, masculinity is positive and related to unexpected core earnings at the 5% significance level in emerging countries. However, Table 4.19 presents a negative and significant relationship at 10% between them. The results in column (4) show a negative but insignificant relationship between MASCU x LEG x SPI and UNEXP_CE. This signifies that whilst a culture of masculinity gives managers the incentive to misclassify core expenses into special items, the legal environment in emerging countries is effective in deterring managers' classification shifting behaviour. That is, despite an insignificant negative relationship, the study observes that in a masculinity culture, people assert power and authority to influence corporate decisions but the positive impact of masculinity culture is constrained by the legal environment. The legal environment plays an effective monitoring role in subduing classification shifting, thus neutralising the positive effects of such a culture.

In column (5), the relationship between uncertainty avoidance, legal environment, special items and unexpected core earnings (UNCAV x LEG x SPI and UNEXP_CE) is examined. The previous results in Table 4.15 indicate that there is a significant positive relationship between the uncertainty avoidance score and classification shifting in emerging countries. This suggests that the higher the uncertainty avoidance in the business environment, the higher managers' motivation to engage in classification shifting. However, in column (5)

the results indicate that the coefficient on UNCAV x LEG x SPI is negative (-0.76, t-value; -4.26) and significant at the 99% confidence level, suggesting that classification shifting is reduced by the interaction between the uncertainty avoidance score and the legal environment in the emerging country sub-sample. The legal environment index offsets the positive impact of this score. Where the legal environment and uncertain avoidance culture interact, the former is effective in curbing classification shifting behaviour. In column (6) of Table 4.22, a separate model is run using LONGT x LEG x SPI as the only independent variable to assess its effect on UNEXP_CE using the emerging country sub-sample. Consistent with the results in Table 4.17, the coefficient on LONGT x LEG x SPI is negative (-0.42, t-value; -5.34) and significant at the 99% confidence level. Previous results in Table 4.17 and 4.19 indicate that both LONGTSPI and LEGALSPI are negatively related to UNEXP_CE at 1% and 10% significance levels. The combined effect of both long-term orientation and legal environment, (LONGT x LEG x SPI), is also negative and related to UNEXP_CE at the 99% confidence level. This implies that some developed countries that are characterised by long-term oriented culture, set long term objectives, report the true financial position of the firm and are not in hurry to misclassify reported core earnings to meet short term gains. This disincentive to engage in classification shifting is induced by the strong legal environment in developed countries, thus making the effect more pronounced. In a nutshell, Table 4.22 shows that in the emerging country sub-sample, the combined effect of culture and legal environment subdues classification shifting, as evidenced by the negative co-efficient in columns (1) to (6) and the significant relationship between the interactive variables of culture, legal environment and classification shift

Table 4.22: Regression of Emerging Countries' Legal Environment, Culture and Classification Shifting

	Dependent Variable: UNEXP_CE					
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Emerging	Emerging	Emerging	Emerging	Emerging	Emerging
SPITEM	0.15**	0.16***	0.11***	0.64***	0.29***	0.22***
	(2.42)	(6.10)	(6.21)	(7.09)	(-12.17)	(3.64)
LEGALENF	-0.05	-0.05	-0.05	-0.04	-0.04	-0.03
	(-1.62)	(-1.61)	(-1.61)	(-1.61)	(-1.58)	(-1.56)
POWDIS	0.01**	0.01**				
	(2.04)	(2.09)				
POWDSPI	0.03**	0.04**				
	(2.07)	(2.13)				
POWDLEGSPI	-0.57	-0.41**				
	(-1.34)	(-2.47)				
INDIV	-0.04		-0.07			
	(-1.51)		(-1.57)			
INDIVSPI	-0.03*		-0.08*			
	(-1.74)		(-1.79)			
INDIVLEGSPI	-0.42**		-0.80***			
	(-2.59)		(-3.61)			
MASCU	0.01*			0.03*		
	(1.73)			(1.79)		
MASCUSPI	0.03**			0.06**		
	(2.05)			(2.49)		
MASCULEGSPI	-0.25**			-0.28**		
	(-2.54)			(-2.59)		
UNCAVO	0.02***				0.03***	
	(3.01)				(3.15)	
UNCAVSPI	0.04***				0.07***	
	(4.58)				(7.95)	
UNCAVLEGSPI	-0.03***				-0.76***	

	(-7.93)				(-4.26)	
LONGTEO	-0.03**					-0.04**
	(-2.17)					(-2.87)
LONGTSPI	-0.02***					-0.09***
	(-4.01)					(-4.30)
LONGTLEGSPI	-0.21**					-0.42**
	(-2.35)					(-2.34)
SIZE	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***
	(-4.90)	(-4.95)	(-5.16)	(-4.95)	(-4.78)	(-4.99)
ROA	-0.56***	-0.57***	-0.57***	-0.56***	-0.55***	-0.56***
	(-5.08)	(-5.32)	(-5.33)	(-5.17)	(-4.98)	(-5.14)
MBV	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
	(-1.35)	(-1.17)	(-1.25)	(-1.18)	(-1.17)	(-1.16)
LEV	0.67***	0.66***	0.66***	0.67***	0.67***	0.67***
	(4.78)	(4.26)	(4.24)	(4.34)	(4.76)	(4.38)
BIG4	-0.02**	-0.06***	-0.06***	-0.06***	-0.06***	-0.06***
	(-2.24)	(-6.21)	(-6.25)	(-6.21)	(-6.12)	(-6.17)
CAPINTEN	0.33***	0.32***	0.32***	0.32***	0.32***	0.32***
	(15.84)	(15.50)	(15.48)	(15.50)	(15.71)	(15.50)
GROWTH	0.06***	0.06***	0.06***	0.06***	0.06***	0.06***
	(6.26)	(6.21)	(6.25)	(6.21)	(6.12)	(6.17)
RELINT	-0.18*	-0.18*	-0.17*	-0.18*	-0.18*	-0.18*
	(-1.76)	(-1.75)	(-1.70)	(-1.73)	(-1.72)	(-1.73)
GDPTOTAL	-0.18	-0.50	-0.45	-0.94	-0.92	-0.25
	(-1.25)	(-1.07)	(-1.07)	(-1.14)	(-1.13)	(-1.18)
CONSTANT	0.02	0.09*	0.49*	1.23*	0.54*	0.51*
	(1.00)	(1.87)	(1.81)	(1.78)	(1.80)	(1.76)
Observations	112023	112023	112023	112023	112023	112023
R-squared	0.40	0.40	0.40	0.40	0.40	0.40
Country Fixed Effects	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
Breusch-Pagan	2437.54	2733.12	2548.66	2488.37	2474.16	2474.16
P-Value	(0.6342)	(0.6592)	(0.6397)	(0.6269)	(0.6349)	(0.6349)
Kolmogorov-Smirnov	333.54	330.84	249.96	242.67	235.43	231.75

P-Value	(0.3213)	(0.3201)	(0.3102)	(0.3028)	(0.2938)	(0.2854)
Wooldridge Test	246.21	244.29	228.39	221.13	67.54	61.47
P-Value	(0.3346)	(0.3267)	(0.3149)	(0.3123)	(0.1938)	(0.1856)

Notes: All variables are defined in Table 4.3. *,** and *** are used in a two tailed test to indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively. The table shows coefficient estimates above and t-statistics below in brackets.

In Table 4.23, the interactions between legal environment and culture for the developing country sub-sample are examined. Six separate models are run and the results are presented in columns (1) to (6). The coefficient on SPITEM is positive and significant at the 95% confidence level in all the columns, signifying and confirming the existence of classification shifting behaviour in developing countries, as observed in Table 4.11 (McVay, 2006; Haw et al., 2001). Initially, all variables are included in column (1), and the results indicate that all the independent variables - POWD x LEG x SPI, INDIV x LEG x SPI, MASCU x LEG x SPI, UNCAV x LEG x SPI and LONGT x LEG x SPI are negatively related to UNEXP_CE at 1% or 5% significance level. For example, the coefficients on POWD x LEG x SPI and INDIV x LEG x SPI are both negative and significant at the 99% confidence level (-0.90, t-value; -2.61 and -0.09, t-value; -3.92). The results in column (1) indicate that the combined effect of culture dimension variables and legal enforcement mitigates management misclassification behaviour in developing countries. On the contrary, the results in Tables 4.12 to 4.17 show that the coefficient on the cultural dimension variables of power distance (POWDISPI), individualism (INDIVSPI), masculinity (MASCUSPI), uncertainty avoidance (UNCAVSPI) and long-term orientation (LONGTSPI) are positive and significant at levels of 5% or 10% in relation to classification shifting (UNEXP_CE). This suggests that in the presence of an effective legal environment in developing countries, dominant culture has no effect on expense and revenue misclassification. Thus, legal environment undermines the effects of the prevailing and dominant culture on classification shifting. This finding is consistent with Leuz et al. (2003) and Haw et al. (2011), who observe that earnings management is negatively associated with a country's legal enforcement. In column (2), four of the variables of interest are dropped and the model run to establish the association between POWD x LEG x SPI and

UNEXP_CE only. The coefficient on POWD x LEG x SPI is negative (-0.19, t-value; -2.37) and significantly associated with UNEXP_CE at the 95% confidence level. Similarly, in column (3) only INDIV x LEG x SPI is included in the model to examine their effects on UNEXP_CE. The results in column (3) indicate that the coefficient on INDIV x LEG x SPI is negative (-0.23, t-value; -2.70) and significant at the 99% confidence level. The results in both columns (2) and (3) suggest that the legal environment influences classification shifting behaviour more than power distance and individualism cultures in developing countries. In columns (4) to (6), the association between MASCU x LEG x SPI and UNEXP_CE, UNCAV x LEG x SPI and UNEXP_CE, LONGT x LEG x SPI and UNEXP_CE are examined. The results indicate that the association between MASCU x LEG x SPI, UNCAV x LEG x SPI, LONGT x LEG x SPI and UNEXP_CE is still negative and significant at 99% and 95% confidence level respectively. Consistent with Leuz et al. (2003), the results confirm that the legal environment mitigates classification shifting. Therefore, the role of culture in motivating misclassification behaviour in developing countries can no longer be demonstrated when the legal environment interacts with the cultural dimension variables. The control variables exhibit their expected coefficient signs and significance levels.

Table 4.23: Regression of Developing Countries' Legal Environment, Culture and Classification Shifting

	Dependent Variable: UNEXP_CE					
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	**Developing**	**Developing**	**Developing**	**Developing**	**Developing**	**Developing**
SPITEM	0.11**	0.38**	0.20**	0.11**	0.60***	0.22**
	(2.35)	(2.11)	(2.39)	(2.27)	(2.62)	(2.04)
LEGALENF	-0.05	-0.05	-0.05	-0.04	-0.04	-0.04
	(-1.54)	(-1.54)	(-1.53)	(-1.52)	(-1.51)	(-1.50)
POWDIS	0.03**	0.07**				
	(2.07)	(2.08)				
POWDSPI	0.06***	0.07***				
	(3.03)	(3.08)				
POWDLEGSPI	-0.90***	-0.19**				
	(-2.61)	(-2.37)				
INDIV	0.02		0.04			
	(1.52)		(1.57)			
INDIVSPI	0.04*		0.06*			
	(1.74)		(1.77)			
INDIVLEGSPI	-0.09***		-0.23***			
	(-3.92)		(-2.70)			
MASCU	0.04*			0.06*		
	(1.74)			(1.76)		
MASCUSPI	0.07*			0.08*		
	(1.77)			(1.79)		
MASCULEGSPI	-0.25***			-0.42***		
	(-2.13)			(-2.88)		
UNCAVO	0.05**				0.07**	
	(2.37)				(2.39)	
UNCAVSPI	0.06**				0.08**	
	(2.49)				(2.69)	
UNCAVLEGSPI	-0.29**				-0.35**	
	(-2.04)				(-2.30)	

LONGTEO	0.02					0.03
	(1.44)					(1.48)
LONGTSPI	0.02*					0.03*
	(1.75)					(1.78)
LONGTLEGSPI	-0.95**					-0.98**
	(-2.04)					(-2.10)
SIZE	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02
	(-1.26)	(-1.31)	(-1.31)	(-1.34)	(-1.34)	(-1.31)
ROA	0.17	0.14	0.14	0.14	0.14	0.15
	(1.63)	(1.39)	(1.41)	(1.41)	(1.38)	(1.42)
MBV	0.00	0.00	0.00	0.00	0.00	0.00
	(0.47)	(0.70)	(0.69)	(0.66)	(0.75)	(0.66)
LEV	0.39***	0.39***	0.38***	0.38***	0.40***	0.39***
	(6.52)	(6.46)	(6.42)	(6.42)	(6.62)	(6.50)
BIG4	-0.037**	-0.035**	-0.036**	-0.034**	-0.035**	-0.034**
	(-2.106)	(-2.100)	(-2.102)	(-2.095)	(-2.100)	(-2.092)
CAPINTEN	0.13*	0.10*	0.11*	0.12*	0.011*	0.010*
	(1.74)	(1.72)	(1.73)	(1.74)	(1.73)	(1.72)
GROWTH	0.13***	0.14***	0.14***	0.14***	0.13***	0.14***
	(5.90)	(6.09)	(6.10)	(6.09)	(6.00)	(6.06)
RELINT	-0.04**	-0.03**	-0.03**	-0.03**	-0.03**	-0.03**
	(-2.24)	(-2.22)	(-2.23)	(-2.23)	(-2.23)	(-2.22)
GDPTOTAL	0.82	0.25	0.34	0.43	0.69	0.33
	(0.886)	(0.878)	(0.879)	(0.880)	(0.884)	(0.879)
CONSTANT	0.38	0.37	0.36	0.36	0.35	0.34
	(1.11)	(1.11)	(1.11)	(1.10)	(1.10)	(1.10)
Observations	5009	5009	5009	5009	5009	5009
R-squared	0.20	0.40	0.40	0.50	0.50	0.40
Country Fixed Effects	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
Breusch-Pagan	1785.43	1658.23	1594.25	1679.33	1609.65	1798.48
P-Value	(0.6486)	(0.6342)	(0.6293)	(0.6367)	(0.6328)	(0.6349)

Kolmogorov-Smirnov	143.65	123.72	123.33	115.49	113.45	112.42
P-Value	(0.1385)	(0.1311)	(0.1213)	(0.1203)	(0.1202)	(0.1201)
Wooldridge Test	84.43	82.78	81.29	78.39	67.54	62.58
P-Value	(0.2378)	(0.2281)	(0.2231)	(0.2134)	(0.1938)	(0.1887)

Notes: All variables are defined in Table 4.3. *,** and *** are used in a two tailed test to indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively. The table shows coefficient estimates above and t-statistics below in brackets.

Table 4.24 provides the fixed effects regression results for testing hypothesis 3b. Model 12 is run to examine the interactions between special items (SPITEM), religiosity (RELINT) and legal environment (LEGALENF) and their impact on classification shifting (UNEXP_CE). The variable of interest is LEG x REL x SPI. The results in Table 4.24 indicate that there is still a positive and significant relationship at the 1% level between SPITEM and UNEXP_CE in the full sample and the sub-samples of developed, emerging and developing countries, suggesting that classification shifting exists in the sub-samples. The coefficients on RELINTSPI are also negative and significant at 1%, 5% and 10% levels for developing, emerging and developed countries respectively, confirming the findings in Table 4.12. That is, countrywide religiosity subdues misclassification and the effect is more noticeable and significant in developing countries than developed ones. Similarly, the coefficient on LEGALSPI is negative and significant at 5% and 10% respectively in the developed and emerging country sub-samples. However, the coefficient on LEGALSPI is negative but not significant in the developing country sub-sample. This is consistent with the findings of previous studies (Behn et al., 2013; Leuz et al., 2003) and confirms the results in Table 4.19. The variables SPITEM, LEGALENF, and RELINT are interacted and it is observed that there is a negative relationship between the interactive term LEG x REL x SPI and UNEXP_CE across all the sub-samples. For example, the coefficient on LEG x REL x SPI is negative (-0.132, t-value; -2.890) and significant at the 99% confidence level in the developed country sub-sample. Similarly, there is a negative coefficient (-0.358, t-value; -1,976 and -0.168, t-value; -2,397) and a significant relationship at the 5% level between LEG x REL x SPI and UNEXP_CE in both the emerging and developing country

sub-samples. The results of the interactive terms (LEG x REL x SPI) on unexpected core earnings suggest that countrywide religiosity reduces managerial motivation to misclassify core expenses into special items, however, a country's religious social norms are induced by the legal environment to subdue classification shifting. Thus, the joint effect of countrywide religiosity and legal environment play a complementary and monitoring role in curbing management classification shifting behaviour in developed, emerging and developing countries. It is further observed that both countrywide religiosity and legal environment constrain management motivation to misclassify core expenses into special items to boost reported core earnings. This is a noble contribution to the literature on managers' classification shifting behaviour. The results build on the findings of earlier studies in the U.S.A and Asia, and other international studies on classification shifting (Behn et al., 2013; McGuire et al. 2012, Callen et al., 2011, Haw et al., 2011, Leuz et al., 2003). In conclusion, the results in Table 4.24 reveal that both legal environment and religiosity restrain classification shifting behaviour in developed, emerging and developing countries. However, the legal environment is effective in developed countries and religiosity is effective in both developing and emerging countries in subduing classification shifting. The joint effect of the interactive term LEG x REL x SPI on UNEXP_CE is much more pronounced in mitigating or monitoring misclassification behaviour in all types of countries than the individual variables.

Table 4.24: Regression of Countrywide Legal Environment, Religiosity and Classification Shifting

Dependent Variable: UNEXP_CE				
	(1)	(2)	(3)	(4)
VARIABLES	Full Sample	Developed	Emerging	Developing
SPITEM	0.741***	0.531**	0.493*	0.942**
	(8.477)	(2.553)	(1.877)	(2.123)
RELINT	-0.035**	-0.022	-0.153*	-0.228***
	(-1.978)	(-1.428)	(-1.739)	(-2.866)
LEGALENF	-0.013*	-0.062*	-0.011	-0.010
	(-1.702)	(-1.761)	(-0.846)	(-0.967)
RELINTSPI	-0.296**	-0.137	-0.493**	-0.425***
	(-2.386)	(-1.478)	(-2.059)	(-3.358)
LEGALSPI	-0.186**	-0.051**	-0.054*	-0.098
	(-2.451)	(-2.334)	(-1.791)	(-1.506)
LEGxRELxSPI	-0.315***	-0.132***	-0.358**	-0.168**
	(-4.196)	(-2.890)	(-1.976)	(-2.397)
SIZE	-0.063***	-0.105***	-0.018***	-0.015
	(-7.162)	(-6.813)	(-4.886)	(-1.321)
ROA	-0.089***	-0.275***	-0.570***	-0.136
	(7.287)	(-3.578)	(-5.387)	(-1.332)
MBV	-0.002	-0.002	-0.001	0.001
	(-1.564)	(-1.102)	(-1.153)	(0.483)
LEV	0.383***	0.148***	0.663***	0.383***
	(9.243)	(4.841)	(4.192)	(6.407)
BIG4	-0.065***	0.057***	-0.057***	-0.135**
	(-3.580)	(3.883)	(-6.091)	(-2.029)
CAPINTEN	0.304***	0.292***	0.316***	0.016*
	(15.262)	(9.153)	(15.369)	(1.703)
GROWTH	0.017**	0.074*	0.054**	0.027*
	(2.137)	(1.857)	(2.170)	(1.819)
CULTURE	-0.023	-0.573	-0.227	-0.956
	(-0.097)	(-0.596)	(-0.384)	(-0.308)
GDPTOTAL	-0.534	-0.517	-0.855	-0.888
	(-0.661)	(-0.851)	(-0.123)	(-0.731)
CONSTANT	0.031	0.245	0.986	0.704
	(1.076)	(1.364)	(0.818)	(1.052)
Observations	254916	137884	112023	5009
R-squared	0.21	0.22	0.38	0.48
Country Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Breusch-Pagan	4282.27	3376.58	2487.31	1768.09
P-Value	(0.7498)	(0.6563)	(0.6349)	(0.6114)
Kolmogorov-Smirnov	237	333	549	135
P-Value	(0.2181)	(0.3213)	(0.6123)	(0.1938)
Wooldridge Test	152.78	246.21	428.39	67.54
P-Value	(0.2981)	(0.3346)	(0.5134)	(0.1938)

Notes: *,**and *** are used in a two tailed test to respectively indicate statistical significance at the 10 percent, 5 percent and 1 percent levels. The table shows the co-efficient estimates and t-statistics (in brackets). All variables are defined in Table 4.3 above.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 RELINT + \beta_3 LEGALENF + \beta_4 LEGALENF \times SPITEM + \beta_5 LEGALENF \times RELINT + \beta_6 LEGALENF \times RELINT \times SPITEM + \beta_7 SIZE + \beta_8 BMV + \beta_9 LEV + \beta_{10} BIG4 + \beta_{11} ROA + + \beta_{12} GROWTH + \beta_{13} CAPINTEN + \beta_{14} GDP + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,}$$

4.6. Robustness Analysis

Several sensitivity tests are performed to validate the robustness of the results.

4.6.1. Validity of the Expectation Model

First, as a robustness check, total accruals (ACCRUALS) are substituted by working capital accruals (WC_ACC) in McVay's (2006) expectation model (1) to compute the normal core earnings (NOR_CE). The aim of replacing ACCRUALS by WC_ACC is to eliminate bias in the expectation model resulting from depreciation expenses and special items, in line with Athanasakou et al. (2009). The results in Table 4.11 are reproduced using WC_ACC in model (1) to compute the new UNEXP_CE. Everything remains the same in the model except that the WC_ACC is used to compute NOR_CE and subsequently UNEXP_CE.

$$UNEXP\_CE = \beta_0 + \beta_1 SPITEM + \beta_2 SIZE + \beta_3 BMV + \beta_4 LEV + \beta_5 BIG4 + \beta_6 ROA + \beta_9 GROWTH + \beta_{10} CAPINTEN + \beta_{11} GDP + Year\ and\ Country\ Fixed\ Effects + \varepsilon_{t,} \quad (2)$$

The regression is re-run using model (2) with the re-estimated UNEXP_CE and the results in Table 4.25, Panel A, columns (1) to (4) show that the coefficient on SPITEM is still positive and significant at 1% and 5% levels for the full sample, the emerging, developing and developed countries sub-samples respectively, confirming that firms in the three categories of countries are engaged in expense misclassification to boost reported core earnings as observed in previous research (Behn et al., 2013; Haw et al., 2011). These results are also similar to those reported in Table 4.11, implying that firms increase reported core earnings through classification shifting. This evidence is consistent with earlier cross-country and national studies on classification shifting (McVay, 2006; Fan et al., 2010, Haw

et al., 2011; Behn et al., 2013), implying that firms in the sub-samples have the incentive to engage in classification shifting. Barua and Cready (2008) argue that McVay's (2006) evidence of classification shifting is illustrative of model bias because of the inclusion of special items accruals. In response, McVay (2008) provides empirical evidence of expense misclassification without accruals in the model of normal core earnings. Consequently, this study follows previous research (Haw et al., 2011; McVay, 2008) to exclude accrual variables from expectation model (1) and re-runs the regression models using both the full and sub-samples.

Table 4.25, Panel A, columns (5) to (8) present the regression results when NOR_CE and UNEXP_CE are re-estimated without accruals, consistent with McVay (2008) and Fan et al. (2010). Model (2) is run for all the sub-samples to re-estimate the main regressions by excluding accruals. Interestingly, the results in columns (5) to (8) indicate that there is still a positive and significant relationship between SPITEM and UNEXP_CE for the full sample, and the developed, emerging and developing country sub-samples. This confirms the existence of expense misclassification in the full sample and sub-samples, as noted in previous studies (Behn et al., 2013; Haw et al., 2011). The result is consistent with the main findings and indicates that special items are inflated as core expenses are shifted down the bottom line into special items, resulting in an increase in reported core earnings. This result is consistent with the findings of McVay (2006), who observes that special items increase with core earnings. Specifically, in column (6) the co-efficient on SPITEM for the developed country sub-sample is positive (0.095, t-value; 2.231) and significant at the 95% confidence level. Similarly, the coefficient on SPITEM for the emerging and developing country sub-samples are positive (0.231 & 0.269, t-value; 3.547 & 3.125) and significant

at the 99% confidence level respectively. The coefficients and level of significance are comparable to those reported in Table 4.11, specifically columns (1) to (4). The inference remains the same and confirms evidence of classification shifting in the developed, emerging and developing country sub-samples. In short, the results in Table 4.25 columns (1) to (8) with working capital accruals and without accruals in the regression model suggest that the previous reported findings of expense misclassification based on McVay's (2006) expectation model are bias free. In Panel B of Table 4.25, the regression results are presented to show the association between RELINTSPI, POWDSPI, INDIVSPI, MASCUSPI, UNCAVSPI, LONGTSPI, LEGALSPI and UNEXP_CE when working capital accruals or no accruals are included in the expectation model. The results are presented in columns (1) to (8) of Panel B. Clearly, columns (1) to (4) show the regression results when working capital accruals are used to compute expected core earnings. Even though accruals are excluded in the expectation model, the results in columns (4) to (8) are similar to those in columns (1) to (4) and are consistent with the main findings. In both cases and in emerging and developing countries columns, the coefficient on RELINTSPI is negative and significant, thus confirming that countrywide religiosity restrains management incentive to misclassify core expenses into special items. The coefficient on POWDSPI is positive and significant, consistent with the findings of Callen et al. (2011. Similarly, consistent with Li and Zahra (2012), the coefficient on UNCAVSPI is positive and significant, suggesting that countries with high uncertainty avoidance have a low tolerance for ambiguity and uncertainty. In addition, MASCUSPI is significant and positively related to UNEXP_CE. Herrmann-Pillatha et al. (2014) find that in high masculinity cultures, the achievement of financial goals and empire building through accounting systems is widespread, hence classification shifting should be more prevalent

in high masculinity countries. Therefore, the result of the study is consistent with prior ones (Herrmann-Pillatha et al., 2014; Callen et al., 2011). Consistent with the main findings, the coefficients on INDIVSPI and LONGTSPI are negative and significant at 95% or significant at the 90% confidence level for both the developed and emerging country sub-samples in all the columns, but positive for developing countries (at the 90% confidence level), suggesting that developing countries are short-term result-oriented and less individualistic. This finding is consistent with Davis and Abdurazokzoda (2016), Klasing (2013) and Callen et al. (2011), who observe that accrual-based earnings management is prevalent in low individualism countries due to the absence of formal institutions, widespread corrupt practices and nepotism. In summary, the results in columns (1) to (8) of Table 4.25 show that countrywide religiosity, culture and legal environment are associated with classification shifting behaviour.

Furthermore, special items are interacted with legal environment, cultural dimension variables and religiosity to confirm the results in Tables 4.21, 4.22 and 4.23. The regression results in columns (1) to (4) of Table 4.26 are obtained when total accruals (ACCRUALS) are replaced in McVay's (2006) expectation model by working capital accruals (WC_ACC) before estimating normal core earnings and subsequent unexpected core earnings. Similarly, columns (5) to (8) show the regression results when accruals are omitted from the expectation model before estimating normal core earnings. Clearly, the results in columns (1) to (4) indicate that there is a significant negative association between the interactive terms POWD x LEG x SPI, INDIV x LEG x SPI, MASCU x LEG x SPI, UNCAV x LEG x SPI and LONGT x LEG x SPI and UNEXP_CE. That is, when interacted with culture and special items, the legal environment serves as a monitoring mechanism to

demotivate managers' classification shifting behaviour in all the sub-samples. As noted in Table 4.25, the coefficients on the cultural dimension variables of power distance, uncertainty avoidance and masculinity are positive and significantly associated with classification shifting. These results do not capture the effect of legal environment interaction on culture and special items. Therefore, the results in Table 4.26 show the impact of religion, legal environment and culture interaction on expense misclassification. In Panel B of Table 4.26, the coefficients of all the interactive terms (POWD x LEG x SPI, INDIV x LEG x SPI, MASCU x LEG x SPI, UNCAV x LEG x SPI and LONGT x LEG x SPI) are negative and significantly related to unexpected core earnings (UNEXP_CE) at 95% or 99% confidence levels in the full sample and sub-samples of developed, emerging and developing countries respectively. This is consistent with the previous findings that religiosity, culture and legal environment play a complementary role in mitigating managers' classification shifting behaviour. However, the effect of legal environment and religiosity are much more pronounced in subduing managers' expense misclassification. The result is consistent with previous studies (Behn et al., 2013; Haw et al., 2011), which observe that a country's legal environment mitigates classification shifting and plays a monitoring role in boosting investor confidence, as well as preventing financial statement misreporting. In summary, the inferences for H1, H2a, H2b, H2c, H2d, H2e, H3a and H3b remain the same. There is still strong evidence of expense misclassification into special items and that legal environment, religiosity and culture interactions have a significant negative impact on classification shifting, confirming the mitigating impact of legal environment, religiosity and culture on classification shifting.

Table 4.25: Regression of Religion, Culture and Legal Environment on Classification Shifting in the Global Sub-samples

Variables	(Using Working Capital Accruals) Dependent Variable: UNEXP_CE				(Without Accruals in Expectation Model)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Full sample	Developed	Emerging	Developing	Full sample	Developed	Emerging	Developing
Panel A: Regression of Special Items on Unexpected Core Earnings								
SPITEM	0.686***	0.125**	0.289***	0.307***	0.474***	0.095**	0.231***	0.269***
	(6.487)	(2.068)	(4.625)	(3.238)	(4.354)	(2.231)	(3.547)	(3.125)
SIZE	-0.058***	-0.094***	-0.017***	-0.018*	-0.047***	-0.086***	-0.013***	-0.016*
	(-6.148)	(-6.982)	(-4.876)	(-1.779)	(-5.292)	(-4.175)	(-3.263)	(-1.743)
ROA	-0.083***	-0.086***	-0.066***	-0.036*	-0.064***	-0.058***	-0.049***	-0.032*
	(-6.467)	(-3.375)	(-5.198)	(-1.752)	(-3.851)	(-3.108)	(-4.376)	(-1.745)
MBV	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002
	(-1.325)	(-1.074)	(-1.109)	(-0.636)	(-1.247)	(-1.021)	(-1.087)	(-0.631)
LEV	0.327***	0.148***	0.421***	0.367***	0.285***	0.124***	0.257***	0.228***
	(5.862)	(4.924)	(4.214)	(6.563)	(4.784)	(3.852)	(3.683)	(3.427)
BIG4	-0.025**	-0.024**	-0.032***	-0.037**	-0.023**	-0.021**	-0.027*	-0.029**
	(-2.344)	(-2.215)	(-3.112)	(-2.126)	(-2.018)	(-2.186)	(-1.762)	(-1.746)
CAPINTEN	0.031**	0.022**	0.018*	0.028*	0.026**	0.021**	0.016*	0.019*
	(2.321)	(2.149)	(1.725)	(1.742)	(2.183)	(1.897)	(1.718)	(1.738)
GROWTH	0.057***	0.054***	0.056***	0.047***	0.043***	0.038***	0.033**	0.034**
	(3.424)	(3.764)	(6.124)	(5.281)	(3.125)	(2.884)	(2.124)	(2.298)
GDP	-0.342	-0.280	-0.357	-0.345	-0.187	-0.194	-0.162	-0.155
	(-0.768)	(-0.789)	(-0.784)	(-0.848)	(-0.506)	(-0.724)	(-0.768)	(-0.843)
Panel B: Regression of Interaction term (between Special Items; Religion, Culture and Legal Environment) on Classification Shifting								

SPITEM	0.686***	0.125**	0.289***	0.307***	0.474***	0.095**	0.231***	0.269***
	(6.487)	(2.068)	(4.625)	(3.238)	(4.354)	(2.231)	(3.547)	(3.125)
RELINT	-0.014**	-0.078*	-0.022*	-0.042**	-0.024*	-0.045*	-0.034*	-0.024**
	(-2.174)	(-1.701)	(-1.745)	(-2.214)	(-1.754)	(-1.712)	(-1.712)	(-2.014)
RELINTSPI	-0.512**	-0.289*	-0.229**	-0.272***	-0.053**	-0.068*	-0.071*	-0.037**
	(-2.235)	(-1.738)	(-2.186)	(-3.989)	(-1.978)	(-1.748)	(-1.774)	(-2.315)
POWDIS	0.019**	0.017*	0.010**	0.016**	0.019**	0.017*	0.010**	0.016**
	(2.271)	(1.751)	(2.091)	(4.271)	(2.271)	(1.751)	(2.091)	(4.271)
POWDSPI	0.061**	0.052*	0.046**	0.054***	0.022**	0.021*	0.017**	0.019***
	(2.282)	(1.754)	(2.127)	(3.152)	(2.249)	(1.744)	(2.076)	(3.451)
INDIV	-0.022**	-0.018**	-0.038	0.024	-0.022**	-0.018**	-0.038	0.024
	(-2.025)	(-2.124)	(-1.417)	(1.527)	(-2.025)	(-2.124)	(-1.417)	(1.527)
INDIVSPI	-0.068***	-0.043***	-0.034*	0.038*	-0.057**	-0.062***	-0.043*	0.026
	(-2.938)	(-3.278)	(-1.734)	(1.712)	(-2.274)	(-3.257)	(-1.737)	(1.524)
MASCU	0.026**	0.042***	0.036*	0.016*	0.056***	0.040***	0.034*	0.014*
	(2.141)	(3.522)	(1.721)	(1.741)	(2.886)	(3.414)	(1.719)	(1.738)
MASCUSPI	0.039**	0.033**	0.025**	0.027*	0.022*	0.014*	0.018**	0.012*
	(2.411)	(2.306)	(2.249)	(1.768)	(1.763)	(1.718)	(1.924)	(1.742)
UNCAVO	0.020**	0.024**	0.027***	0.026**	0.019**	0.022**	0.029***	0.029**
	(2.312)	(2.002)	(3.002)	(2.402)	(2.308)	(2.027)	(3.009)	(2.458)
UNCAVSPI	0.029***	0.027***	0.032***	0.030**	0.026**	0.023**	0.030***	0.024**
	(4.156)	(3.126)	(4.138)	(2.257)	(2.451)	(2.125)	(2.954)	(2.231)
LONGTEO	-0.027**	-0.031	-0.011**	0.013	-0.025**	-0.028	-0.010**	0.011
	(-2.108)	(-1.509)	(-2.010)	(1.428)	(-2.102)	(-1.504)	(-2.005)	(1.422)
LONGTSPI	-0.041**	-0.037*	-0.019**	0.023*	-0.012**	-0.021*	-0.043**	0.012
	(-2.168)	(-1.709)	(-2.301)	(1.728)	(-2.109)	(-1.714)	(-2.105)	(1.460)
LEGALENF	-0.013*	-0.062*	-0.011	-0.010	-0.012*	-0.060*	-0.010	-0.010
	(-1.702)	(-1.761)	(-0.846)	(-0.967)	(-1.700)	(-1.759)	(-0.844)	(-0.967)
LEGALSPI	-0.073**	-0.064**	-0.051*	-0.052	-0.024**	-0.034*	-0.013	-0.21
	(-2.382)	(-2.227)	(-1.718)	(-1.469)	(-1.734)	(-1.721)	(-0.847)	(-0.937)
CONSTANT	0.224**	0.424	0.154**	0.421	0.246**	0.351*	0.127**	0.256
	(2.391)	(1.367)	(2.159)	(0.708)	(2.191)	(1.791)	(2.187)	(0.946)

Observations	254916	137884	112023	5009	254916	137884	112023	5009
R-squared	0.23	0.25	0.39	0.42	0.22	0.24	0.38	0.41
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FEs	YES	YES	YES	YES	YES	YES	YES	YES
Breusch-Pagan	5282.27	5137.15	4488.26	3206.89	5122.78	5189.32	4476.47	3202.45
P-Value	(0.7498)	(0.7304)	(0.6486)	(0.6108)	(0.7248)	(0.7120)	(0.6486)	(0.6104)
Kolmogorov-Smirnov	428	329	234	132	435	333	237	135
P-Value	(0.4132)	(0.3211)	(0.2172)	(0.1917)	(0.4138)	(0.3213)	(0.2181)	(0.1938)
Wooldridge Test	89.47	243.21	148.78	64.53	88.43	246.21	152.78	67.54
P-Value	(0.2372)	(0.3245)	(0.2876)	(0.1827)	(0.2378)	(0.3346)	(0.2981)	(0.1938)

Notes: All variables are defined in Table 4.3. *,** and *** are used in a two tailed test to indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively. Coefficient estimates are shown above and t-statistics below in brackets.

4.6.2. Exclusion of Countries with Highest Number of Observations

Given the heterogeneous nature of the sample, in line previous studies (Dietrich and Wanzenried, 2014; Behn et al., 2013, Haw et al., 2011), further robustness tests are run to ensure that the findings are not driven by the large number of firm-year observations, extreme values in the data, or specific data characteristics. Leuz et al. (2003) indicate that results might be influenced by firm-year observations across countries due to variations in country size, the availability of financial statements and capital market developments. Consequently, Behn et al. (2013), in a cross-country study investigating classification shifting and investor protection, excluded U.S., Japan and U.K. firm-year observations to avoid a situation where the results could be driven by extremely high or low quantities of data from these countries. Similarly, Haw et al. (2011) examined the association between corporate governance and classification shifting in East Asian countries, and excluded Hong Kong firm-year observations from the study.

Consequently, this study follows previous research to exclude countries with a high number of firm-year observations. The following countries with large firm year observations are excluded from the developed country sub-sample: Australia, Japan, Taiwan, the UK and the U.S. Initially, the study re-runs the models to exclude only U.S. observations from the developed countries sub-sample. The results are presented in column (1) of Panel A, Table 4.27 and indicate clearly that the inferences for H1, H3a and H3b do not change. The regression models are also re-run to exclude both U.S and UK firm year observations from the developed country sub-sample. The results in column (2), Panel A of Table 4.27 are consistent with previous findings. This confirms that even without the U.S. and UK firm-

year observations, the inferences remain the same. Third, the regression model is re-run excluding U.S., UK and Japanese firm-year observations from the developed country sub-sample. The results from the altered sample are presented in column (3) of Table 4.27. Although some changes are observed in the coefficients and t-values, the main results, and most importantly the inferences, still remain the same. In addition, the study re-runs the regressions to exclude U.S., UK, Japanese, Australian and Taiwanese firm-year observations from the developed country sub-sample. The results are presented in column (4), Panel A of Table 4.27. The results are consistent with the previous findings and confirm that classification shifting is prevalent in the developed country sub-sample, even with the exclusion of countries with large number of firm-year observations. Specifically, the coefficients on RELINTSPI, LEGALSPI and LEGALRELSPI are negative and significant at 95% or 90% confidence levels. The results confirm that in the developed country sub-sample the interactive terms between religiosity, special items and legal environment lessen managers' incentive to engage in expense misclassification to increase reported core earnings. Thus the inferences remain unchanged and confirm the previous findings, that the motivation to engage in expense misclassification is restrained by legal environment, culture and religiosity interactions.

Furthermore, Panel A of Table 4.27 presents the regression results of the emerging country sub-sample after excluding observations from China and India. Initially, the regression model is re-run to exclude Chinese firm-year observations from the emerging country sub-sample and the results are presented in column (5). The coefficients on RELINTSPI, LEGALSPI and LEGALRELSPI remain negative and significant at 99% or 95% confidence levels. The results in column (5) are consistent with the findings in Table 4.22

and the inferences do not change. Specifically, the coefficient on special items is positive and significantly related to unexpected core earnings. The joint effect of religiosity and legal environment is also negatively associated with classification shifting. The effect is obvious when legal environment and religiosity are interacted to assess their impact on expense misclassification. There is still a significant and negative association between the interactive terms and classification shifting, confirming the previous findings in the emerging country sub-sample. Thus, religiosity and legal environment potentially mitigate classification shifting. However, the impact of religiosity on classification shifting is more pronounced in emerging countries than developed ones. Similarly, column (6) of Panel A, Table 4.27 presents the regression results, when the study excludes both Chinese and Indian firm-year observations from the emerging country sub-sample. Consistent with the results in column (5) and Table 4.22, it is observed that religiosity, legal environment and their interactive terms potentially have a negative effect on expense misclassification. Even when Chinese and Indian firm-year observations were excluded, the inferences remain the same. Slight changes are observed in the coefficients and estimates; however, the main results and the results of the data for the emerging country sub-sample in columns (5) and (6) are consistent with previous findings.

Panel A of Table 4.27 presents the results of the developing country sub-sample, excluding Vietnamese and Sri Lankan firm-year observations. First, the regression model is re-run excluding Vietnamese observations. Thereafter, both Vietnamese and Sri Lankan firm-year observations are excluded and the results are presented in columns (7) and (8) respectively. Consistent with previous results, the coefficient on RELINTSPI is negative and significant at the 99% confidence level in both columns (7) and (8), confirming the potential impact

of religiosity in decreasing classification shifting behaviour in developing countries. However, the coefficients on LEGALENF and LEGALSPI are negative but not significant in both columns (7) and (8), confirming the previous results that developing countries' legal environment is not strong enough to subdue classification shifting behaviour. These results are consistent with the previous results in Table 4.19 and the inferences do not change. The coefficients on LEGALREL and LEGALRELSPI are negative and significant at the 95% confidence level in both columns (7) and (8), an indication that the interactive terms of religiosity, special items and legal environment constrain the misclassification of core expenses into special items to increase reported core earnings. The results in Panel A of Table 4.27 remain unchanged and are consistent with previous findings (Behn et al., 2013; Haw et al., 2011). Therefore, the findings suggest that the legal environment in developed and emerging countries is strong to mitigate classification shifting behaviour, but it is weak in developing countries. Notwithstanding, the interactive term LEGALRELSPI has a negative impact on all the sub-samples, suggesting that countrywide religiosity is strengthened by the country's legal environment to mitigate expense misclassification. In addition, the joint effect of religiosity and legal environment serves as a form monitoring mechanism to subdue classification shifting behaviour in developed, emerging and developing countries. However, the monitoring role of religion and legal environment to mitigate this managerial opportunistic behaviour is strong in developed and developing countries.

Table 4.26: Regression of Interaction Term between Special Items, Culture and Legal Environment on Classification Shifting

Variables	(Using Working Capital Accruals) **Dependent Variable: UNEXP_CE** (Without Accruals in Expectation Model)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Full sample	Developed	Emerging	Developing	Full sample	Developed	Emerging	Developing
Panel A: Regression of Special Items on Unexpected Core Earnings								
SPITEM	0.645***	0.123**	0.287***	0.301***	0.471***	0.089**	0.226***	0.256***
	(6.484)	(2.063)	(4.622)	(3.232)	(4.350)	(2.228)	(3.534)	(3.118)
SIZE	-0.057***	-0.093***	-0.017***	-0.018*	-0.045***	-0.082***	-0.013***	-0.015*
	(-6.146)	(-6.980)	(-4.876)	(-1.779)	(-5.286)	(-4.171)	(-3.260)	(-1.741)
ROA	-0.074***	-0.076***	-0.064***	-0.034*	-0.062***	-0.057***	-0.042***	-0.031*
	(-6.427)	(-3.358)	(-5.192)	(-1.748)	(-3.831)	(-3.078)	(-4.306)	(-1.742)
MBV	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002
	(-1.322)	(-1.072)	(-1.107)	(-0.634)	(-1.244)	(-1.022)	(-1.082)	(-0.627)
LEV	0.256***	0.129***	0.421***	0.238***	0.226***	0.114***	0.213***	0.218***
	(5.432)	(4.765)	(4.147)	(6.254)	(4.284)	(3.232)	(3.243)	(3.238)
BIG4	-0.024**	-0.023**	-0.030***	-0.033**	-0.022**	-0.021**	-0.025*	-0.028*
	(-2.341)	(-2.212)	(-3.108)	(-2.118)	(-2.017)	(-2.184)	(-1.760)	(-1.745)
CAPINTEN	0.030**	0.021**	0.017*	0.026*	0.023**	0.019**	0.015*	0.017*
	(2.317)	(2.144)	(1.722)	(1.740)	(2.181)	(1.892)	(1.712)	(1.733)
GROWTH	0.055***	0.053***	0.055***	0.045***	0.041***	0.036***	0.031**	0.031**
	(3.421)	(3.761)	(6.122)	(5.279)	(3.124)	(2.881)	(2.121)	(2.292)
GDP	-0.341	-0.280	-0.357	-0.344	-0.182	-0.193	-0.162	-0.155
	(-0.767)	(-0.789)	(-0.784)	(-0.844)	(-0.504)	(-0.722)	(-0.768)	(-0.843)
Panel B: Interaction Term between Special Items, Culture Dimensions and Legal Environment on Classification Shifting								

LEGALENF	-0.012*	-0.060*	-0.011	-0.010	-0.011*	-0.060*	-0.010	-0.010
	(-1.700)	(-1.760)	(-0.847)	(-0.966)	(-1.700)	(-1.759)	(-0.844)	(-0.967)
POWDIS	0.019**	0.017*	0.010**	0.016**	0.019**	0.017*	0.010**	0.016**
	(2.171)	(1.751)	(2.091)	(2.271)	(2.271)	(1.751)	(2.091)	(2.071)
POWDSPI	0.061**	0.052*	0.046**	0.054**	0.022**	0.021*	0.017**	0.019***
	(2.201)	(1.754)	(2.127)	(2.152)	(2.249)	(1.744)	(2.076)	(3.451)
POWDLEGSPI	-0.261**	-0.132**	-0.374**	-0.421**	-0.122**	-0.125**	-0.117**	-0.191***
	(-2.472)	(-2.254)	(-2.027)	(-2.312)	(-2.489)	(-1.864)	(-2.241)	(-4.251)
INDIV	-0.022**	-0.018**	-0.038	0.024	-0.022**	-0.018**	-0.038	0.024
	(-2.025)	(-2.124)	(-1.417)	(1.527)	(-2.025)	(-2.124)	(-1.417)	(1.527)
INDIVSPI	-0.068***	-0.043***	-0.034*	0.038*	-0.057**	-0.062***	-0.043*	0.026
	(-2.938)	(-3.278)	(-1.734)	(1.712)	(-2.274)	(-3.257)	(-1.737)	(1.524)
INDIVLEGSPI	-0.224***	-0.423***	-0.147**	-0.262**	-0.257**	-0.362***	-0.138**	-0.233**
	(-4.426)	(-4.452)	(-2.234)	(-2.212)	(-3.362)	(-3.341)	(-1.937)	(-2.324)
MASCU	0.036**	0.042**	0.036*	0.016*	0.056***	0.040***	0.034*	0.014*
	(2.141)	(2.222)	(1.721)	(1.741)	(2.886)	(3.414)	(1.719)	(1.738)
MASCUSPI	0.029**	0.023**	0.015**	0.017*	0.022*	0.014*	0.018**	0.012*
	(2.211)	(2.106)	(2.249)	(1.768)	(1.763)	(1.718)	(1.924)	(1.742)
MASCULEGSPI	-0.129**	-0.203**	-0.156*	-0.322**	-0.123*	-0.104**	-0.182*	-0.124**
	(-2.234)	(-2.327)	(-1.749)	(-1.998)	(-1.763)	(-1.986)	(-1.734)	(-1.982)
UNCAVO	0.019**	0.024**	0.026***	0.025**	0.018**	0.020**	0.027***	0.026**
	(2.308)	(2.402)	(3.000)	(2.398)	(2.306)	(2.024)	(3.001)	(2.446)
UNCAVSPI	0.026***	0.027***	0.031***	0.030**	0.024**	0.022**	0.029***	0.023**
	(3.107)	(3.125)	(3.638)	(2.257)	(2.437)	(2.122)	(2.947)	(2.228)
UNCAVLEGSPI	-0.129***	-0.128***	-0.424***	-0.323**	-0.126**	-0.124**	-0.241***	-0.292**
	(-4.109)	(-3.453)	(-4.241)	(-2.186)	(-2.451)	(-2.361)	(-2.854)	(-2.031)
LONGTEO	-0.027**	-0.031	-0.011**	0.013	-0.025**	-0.028	-0.010**	0.011
	(-2.108)	(-1.509)	(-2.010)	(1.428)	(-2.102)	(-1.504)	(-2.005)	(1.422)
LONGTSPI	-0.041**	-0.037*	-0.019**	0.023*	-0.012**	-0.021*	-0.043**	0.012
	(-2.168)	(-1.709)	(-2.301)	(1.728)	(-2.109)	(-1.714)	(-2.105)	(1.460)
LONGTLEGSPI	-0.532**	-0.424**	-0.317**	-0.932***	-0.212**	-0.421**	-0.252**	-0.712**
	(-2.364)	(-2.267)	(-2.301)	(-2.741)	(-2.128)	(-2.023)	(-2.105)	(-2.385)

LEGRELSPI	-0.173**	-0.131***	-0.356**	0.167	-0.124***	-0.134***	-0.213**	-0.241
	(-2.452)	(-2.887)	(-1.974)	(-1.394)	(-2.734)	(-2.721)	(-1.847)	(-1.337)
CONSTANT	0.218	0.424	0.154*	0.421	0.246	0.351	0.127*	0.252
	(0.854)	(1.367)	(1.793)	(0.708)	(0.891)	(1.491)	(1.872)	(0.946)
Observations	254916	137884	112023	5009	254916	137884	112023	5009
R-squared	0.23	0.24	0.39	0.41	0.22	0.23	0.37	0.40
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FEs	YES	YES	YES	YES	YES	YES	YES	YES
Breusch-Pagan	5325.84	5218.24	4765.47	3107.21	5122.78	5189.32	4476.47	3202.45
P-Value	(0.7436)	(0.7209)	(0.6654)	(0.6075)	(0.7248)	(0.7120)	(0.6486)	(0.6104)
Kolmogorov-Smirnov	426.84	322.24	231.36	129.75	430.81	337.46	239.73	133.57
P-Value	(0.4026)	(0.3141)	(0.2017)	(0.1787)	(0.4149)	(0.3218)	(0.2282)	(0.1939)
Wooldridge Test	86.94	241.27	142.71	62.56	89.47	246.21	151.76	68.58
P-Value	(0.2237)	(0.3153)	(0.2779)	(0.1836)	(0.2373)	(0.3328)	(0.2961)	(0.1946)

Notes: All variables are defined in Table 4.3. *,** and *** are used in a two tailed test to indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively. The table shows co-efficient estimates above and t-statistics below in brackets.

Table 4.27: Regression of Interaction Term between Special Items, Culture and Legal Environment on Classification Shifting

	Dependent Variable: UNEXP_CE							
VARIABLES	(1) Developed	(2) Developed	(3) Developed	(4) Developed	(5) Emerging	(6) Emerging	(7) Developing	(8) Developing
Panel A: Regression of Legal Environment, Religiosity and Special Items on Unexpected Core Earnings								
SPITEM	0.771***	0.750***	0.067***	0.236**	0.735**	0.639**	0.798***	0.681***
	(2.720)	(3.745)	(3.093)	(1.940)	(1.917)	(2.390)	(3.495)	(3.553)
RELINT	-0.205	-0.213	-0.270	-0.230	-0.361*	-0.420*	-0.895**	-0.075***
	(-1.480)	(-1.488)	(-1.429)	(-1.363)	(-1.658)	(-1.659)	(-2.257)	(-2.871)
RELINTSPI	-0.309	-0.472	-0.116	-0.112	-0.083*	-0.163**	-0.323***	-0.648***
	(-1.498)	(-1.504)	(-1.561)	(-1.267)	(-1.702)	(-2.079)	(-3.860)	(-3.862)
LEGALENF	-0.186**	-0.283**	-0.354**	-0.391**	-0.040*	-0.052*	-0.090	-0.047
	(-1.932)	(-2.156)	(-2.070)	(-2.080)	(-1.777)	(-1.687)	(-1.589)	(-1.510)
LEGALSPI	-0.676***	-0.375***	-0.453***	-0.680***	-0.393**	-0.189**	-0.357	-0.845
	(-2.889)	(-3.298)	(-2.719)	(-3.006)	(-1.994)	(-2.016)	(-1.543)	(-1.422)
LEGALREL	-0.290*	-0.338*	-0.423*	-0.335*	-0.280**	-0.156*	-0.136**	-0.121**
	(-1.727)	(-1.768)	(-1.716)	(-1.726)	(-2.221)	(-1.733)	(-2.187)	(-2.268)
LEGALRELSPI	-0.077**	-0.087**	-0.055**	-0.029**	-0.061***	-0.235**	-0.239**	-0.320**
	(-2.186)	(-2.221)	(-2.266)	(-2.359)	(-3.038)	(-2.466)	(-2.154)	(-2.340)
SIZE	-0.111***	-0.102***	-0.108***	-0.104***	-0.009**	-0.024***	-0.007	-0.011
	(-3.638)	(-3.837)	(-3.570)	(-3.782)	(-2.465)	(-3.167)	(-0.383)	(-0.519)
ROA	-0.334***	-0.350***	-0.399***	-0.159***	-0.208***	-0.045*	-0.196*	-0.129*
	(-3.088)	(-3.758)	(-3.106)	(-3.243)	(-5.365)	(-1.759)	(-1.704)	(-1.748)
MBV	-0.002	-0.002	-0.002	-0.003**	-0.004***	-0.004***	0.001	0.002
	(-0.995)	(-1.254)	(-0.586)	(-1.966)	(-3.157)	(-2.963)	(0.265)	(0.498)
LEV	0.169***	0.255***	0.237***	0.265***	0.486***	0.440***	0.346***	0.332***
	(5.136)	(6.576)	(4.703)	(7.544)	(3.280)	(3.520)	(4.614)	(3.507)
BIG4	-0.025**	-0.023**	-0.024**	-0.022**	-0.022**	-0.025**	-0.016*	-0.019*
	(-2.130)	(-2.471)	(-2.452)	(-2.263)	(-2.170)	(-2.235)	(-1.739)	(-1.705)
CAPINTEN	0.030**	0.033**	0.024**	0.023**	0.026*	0.031*	0.054	0.101
	(2.190)	(2.243)	(2.287)	(2.208)	(1.729)	(1.771)	(0.842)	(1.266)
GROWTH	0.065***	0.083***	0.104***	0.092***	0.052***	0.025***	0.160***	0.069*
	(4.130)	(4.571)	(4.452)	(5.763)	(5.170)	(10.635)	(5.539)	(1.705)

GDP	-0.316	-0.368	-0.146	-0.200***	-0.920	-0.446	-0.212	-0.478
	(-0.802)	(-1.127)	(-1.087)	(-2.773)	(-0.137)	(-0.079)	(-1.200)	(-0.623)

Panel B: Regression of Legal Environment, Culture and Special Items on Unexpected Core Earnings

POWDIS	0.017*	0.017*	0.016*	0.016*	0.011**	0.010**	0.016**	0.016**
	(1.751)	(1.751)	(1.750)	(1.749)	(2.101)	(2.091)	(2.271)	(2.271)
POWDSPI	0.092**	0.075*	0.074**	0.182**	0.056**	0.035**	0.030**	0.057**
	(2.198)	(1.802)	(2.243)	(2.404)	(2.317)	(1.983)	(2.268)	(2.429)
POWDLEGSPI	-0.135**	-0.142*	-0.196**	-0.137*	-0.282**	-0.259**	-0.227**	-0.124**
	(-2.289)	(-1.838)	(-2.225)	(-1.776)	(-2.396)	(-1.961)	(-2.265)	(-2.440)
INDIV	-0.019**	-0.018**	-0.017**	-0.017**	-0.038	-0.037	0.024	0.023
	(-2.125)	(-2.124)	(-2.122)	(-2.121)	(-1.417)	(-1.416)	(1.526)	(1.525)
INDIVSPI	-0.040**	-0.038**	-0.058**	-0.086**	-0.015*	-0.013*	0.027*	0.032*
	(-2.081)	(-2.176)	(-2.497)	(-2.437)	(-1.744)	(-1.725)	(1.779)	(1.807)
INDIVLEGSPI	-0.339**	-0.107**	-0.308**	-0.232***	-0.187**	-0.108**	-0.075*	-0.082*
	(-2.088)	(-2.190)	(-2.465)	(-4.929)	(-2.146)	(-2.289)	(-1.718)	(-1.802)
MASCU	0.042**	0.042**	0.041**	0.040**	0.036*	0.035*	0.015*	0.016*
	(2.222)	(2.222)	(2.220)	(2.218)	(1.721)	(1.720)	(1.740)	(1.741)
MASCUSPI	0.044*	0.042*	0.041*	0.040*	0.086*	0.096*	0.053**	0.075**
	(1.776)	(1.767)	(1.749)	(1.746)	(1.722)	(1.744)	(2.313)	(2.295)
MASCULEGSPI	-0.591*	-0.856*	-0.381**	-0.138***	-0.409**	-0.724**	-0.393*	-0.415*
	(-1.693)	(-1.749)	(-1.983)	(-5.021)	(-2.283)	(-2.159)	(-1.761)	(-1.765)
UNCAVO	0.024**	0.024**	0.023**	0.022**	0.026***	0.024***	0.024**	0.023**
	(2.402)	(2.402)	(2.400)	(2.398)	(3.000)	(2.980)	(2.396)	(2.382)
UNCAVSPI	0.067***	0.026***	0.021***	0.084*	0.028*	0.043*	0.027*	0.025*
	(3.255)	(3.863)	(3.735)	(1.731)	(1.825)	(1.865)	(1.739)	(1.764)
UNCAVLEGSPI	-0.343**	-0.318**	-0.418*	-0.210**	-0.321*	-0.388*	-0.332*	-0.445**
	(-2.267)	(-2.837)	(-1.711)	(-2.228)	(-1.764)	(-1.770)	(-1.708)	(-2.221)
LONGTEO	-0.031	-0.030	-0.030	-0.029	-0.010**	-0.011**	0.012	0.011
	(-1.509)	(-1.504)	(-1.503)	(-1.500)	(-2.006)	(-2.013)	(1.422)	(1.420)
LONGTSPI	-0.031*	-0.039*	-0.046**	-0.056***	-0.026**	-0.23**	0.053*	0.089*
	(-1.769)	(-1.710)	(-2.400)	(-2.726)	(-2.048)	(-2.174)	(1.747)	(1.847)
LONGTLEGSPI	-0.496**	-0.435**	-0.393***	-0.356***	-0.367**	-0.307**	-0.249**	-0.852***
	(-2.448)	(-2.309)	(-3.380)	(-2.946)	(-2.192)	(-2.188)	(-2.243)	(-2.819)

CONSTANT	-0.966	-0.674	-0.800	-0.266**	0.952	0.858	0.144*	0.028
	(-0.426)	(-0.572)	(-0.550)	(-2.261)	(0.430)	(0.238)	(1.697)	(1.261)
Observations	108,123	89,402	65,505	31,951	87,373	61,752	3,180	1,531
R-squared	0.24	0.23	0.24	0.16	0.26	0.26	0.53	0.47
Country Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
Breusch-Pagan	5186.15	5142.19	4987.19	4468.17	4488.26	4488.26	5276.26	5206.89
P-Value	(0.7254)	(0.7159)	(0.7058)	(0.6558)	(0.6598)	(0.6598)	(0.7154)	(0.7108)
Kolmogorov-Smirnov	328	256	231	119	230.36	223.64	143.26	138.49
P-Value	(0.3416)	(0.2813)	(0.2210)	(0.1608)	(0.2113)	(0.1908)	(0.1959)	(0.1927)
Wooldridge Test	244.28	213.29	183.62	134.48	143.18	121.16	63.48	47.27
P-Value	(0.3146)	(0.2825)	(0.2514)	(0.2367)	(0.2592)	(0.2254)	(0.1823)	(0.1462)

Notes: All variables are defined in Table 4.3. *,** and *** are used in a two tailed test to indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively. The table shows co-efficient estimates above and t-statistics below in brackets.

In addition, Panel B of Table 4.27 provides further regression results to confirm that the findings are robust when the study excludes large numbers of firm-year observations. The study re-runs the regression models and interacts special items with cultural dimension variables, and special items and legal environment with cultural dimension variables to confirm that the results obtained previously in H2a, H2b, H2c, H2d and H2e are robust. Columns (1) to (4), columns (5) to (6), and (7) to (8) provide the results for the developed, emerging and developing country sub-samples respectively. These indicate that the coefficients on POWDSPI, MASCUSPI, and UNCAVSPI are positive and significant at 99%, 95% and 90% confidence levels in developed, emerging and developing countries respectively, consistent with the previous results. The inferences do not change and indicate that high power distance, high masculinity and high uncertainty avoidance cultures provide motivation for firm managers to engage in classification shifting behaviour across the sub-samples. Again, similar to the previous results, the coefficients on INDIVSPI and LONGTSPI are negative and significant at 95% and 90% confidence levels, as indicated in Panel B, columns (1) to (6). The results suggest that some countries in the developed and emerging country sub-samples are long-term result -oriented and individualist, consistent with the previous findings. Therefore, there is no incentive for short-term profits or no extended family pressure to meet, hence the negative association between INDIVSPI, LONGTSPI and classification shifting. On the contrary, the coefficients on INDIVSPI and LONGTSPI for developing countries are positive and significant at the 90% confidence level, confirming that these countries are characterised as being short-term result-oriented and collectivist, hence the positive relationship between INDIVSPI, LONGTSPI and UNEXP_CE. The inferences remain the same and contribute to the previous literature on culture and earnings management (Callen et al., 2011; Han et al., 2010; Richardson, 2008)

Table 4.28: Regression of Interaction Term between Special Items, Culture, Religion and Legal Environment on Classification Shifting

	Dependent Variable : UNEXP_CE					
VARIABLES	(HIGH) Developed	(LOW) Developed	(HIGH) Emerging	(LOW) Emerging	(HIGH) Developing	(LOW) Developing
Panel A: Regression of Legal Environment, Religiosity and Special Items on Unexpected Core Earnings						
SPITEM	0.710***	0.451**	0.397**	0.794*	0.663***	0.487*
	(4.787)	(2.413)	(2.231)	(1.763)	(2.746)	(1.732)
RELINT	-0.663*	-0.705	-0.016**	-0.023	-0.204***	-0.085*
	(-1.750)	(-0.611)	(-1.981)	(-1.552)	(-3.121)	(-1.713)
RELINTSPI	-0.709**	-0.056	-0.233***	-0.185	-0.234***	-0.117*
	(-2.084)	(-1.465)	(-5.236)	(-1.589)	(-4.716)	(-1.877)
LEGALENF	-0.086**	-0.249**	-0.083*	-0.178	-0.056	-0.099
	(-2.467)	(-1.962)	(-1.713)	(-0.866)	(-0.166)	(-0.285)
LEGALSPI	-0.397***	-0.549**	-0.095*	-0.098*	-0.379	-0.319
	(-3.253)	(-2.297)	(-1.763)	(-1.718)	(-1.318)	(-1.139)
LEGALREL	-0.044*	-0.040*	-0.333**	-0.266**	-0.218**	-0.058**
	(-1.747)	(-1.776)	(-1.997)	(-2.038)	(-2.405)	(-2.135)
LEGALRELSPI	-0.839***	-0.051*	-0.128**	-0.458**	-0.237***	-0.174**
	(-4.263)	(-1.722)	(-2.359)	(-2.255)	(-4.693)	(-2.297)
SIZE	-0.064***	-0.139***	-0.011**	0.047**	-0.012	-0.018
	(-3.726)	(-3.018)	(-2.106)	(-2.436)	(-0.821)	(-0.973)
ROA	-0.239***	-0.345**	-0.389***	-0.208***	-0.163*	-0.069*
	(-3.939)	(-2.123)	(-3.301)	(-3.525)	(-1.706)	(-1.705)
MBV	-0.004***	-0.001	-0.004***	-0.005***	-0.007*	-0.005
	(-3.047)	(-0.607)	(-2.878)	(-2.892)	(-1.669)	(-1.646)
LEV	0.395***	0.090**	0.485***	0.961***	0.342***	0.507***
	(3.157)	(2.503)	(4.058)	(5.763)	(3.971)	(5.911)
BIG4	-0.018**	-0.017**	-0.024**	-0.034**	-0.072*	-0.204
	(-2.496)	(-2.359)	(-2.022)	(-2.433)	(-1.738)	(-1.332)
CAPINTEN	0.087**	0.097*	0.024**	0.014**	0.007*	0.068
	(2.077)	(1.742)	(2.207)	(2.064)	(1.787)	(1.032)
GROWTH	0.168***	0.117***	0.024**	0.114***	0.072**	0.204***
	(10.996)	(6.659)	(2.022)	(7.433)	(2.138)	(7.332)

GDP	-0.524***	-0.855	-2.695	-0.316	-0.726	-0.940
	(-4.266)	(-0.895)	(-0.289)	(-0.212)	(-1.475)	(-0.361)
Panel B: Regression of Legal Environment, Culture and Special Items on Unexpected Core Earnings						
POWDIS	0.095*	0.095*	0.011**	0.010**	0.015**	0.016**
	(1.716)	(1.716)	(2.101)	(2.091)	(2.268)	(2.270)
POWDSPI	0.095*	0.096*	0.033**	0.056**	0.017**	0.013*
	(1.716)	(1.783)	(1.973)	(2.317)	(2.142)	(1.742)
POWDLEGSPI	-0.152**	-0.219*	-0.192**	-0.142**	-0.158**	-0.132**
	(-2.294)	(-1.815)	(-1.988)	(-1.796)	(-2.107)	(-2.087)
INDIV	-0.018**	-0.017**	-0.038	-0.039	0.024	0.023
	(-2.124)	(-2.120)	(-1.417)	(-1.424)	(1.526)	(1.525)
INDIVSPI	-0.062*	-0.080*	-0.011*	-0.009*	0.022*	0.017
	(-2.054)	(-2.185)	(-1.721)	(-1.742)	(1.729)	(1.624)
INDIVLEGSPI	-0.184**	-0.376**	-0.103**	-0.098**	-0.068*	-0.038*
	(-2.170)	(-2.378)	(-2.224)	(-2.146)	(-1.709)	(-1.702)
MASCU	0.042**	0.040**	0.036*	0.036*	0.014*	0.016*
	(2.228)	(2.220)	(1.721)	(1.721)	(1.739)	(1.741)
MASCUSPI	0.044**	0.043**	0.072*	0.067*	0.038*	0.039*
	(2.557)	(2.541)	(1.738)	(1.769)	(1.737)	(1.748)
MASCULEGSPI	-0.829*	-0.734*	-0.321**	-0.249**	-0.247*	-0.223*
	(-1.882)	(-1.785)	(-2.131)	(-2.176)	(-1.756)	(-1.728)
UNCAVO	0.024**	0.023**	0.024**	0.022**	0.020**	0.021**
	(2.402)	(2.400)	(2.180)	(2.070)	(2.301)	(2.306)
UNCAVSPI	0.083**	0.059*	0.033*	0.025*	0.025*	0.021
	(2.290)	(1.760)	(1.812)	(1.775)	(1.726)	(1.626)
UNCAVLEGSPI	-0.279***	-0.248**	-0.271*	-0.251*	-0.284*	-0.251*
	(-3.779)	(-2.111)	(-1.765)	(-1.738)	(-1.705)	(-1.703)
LONGTEO	-0.029	-0.030	-0.011**	-0.010**	0.011	0.012
	(-1.502)	(-1.503)	(-2.026)	(-2.016)	(1.421)	(1.422)
LONGTSPI	-0.090*	-0.085	-0.22**	-0.019**	0.046*	0.035*
	(-1.710)	(-1.065)	(-2.171)	(-2.098)	(1.758)	(1.729)
LONGTLEGSPI	-0.246**	-0.101*	-0.214**	-0.258**	-0.249**	-0.173**
	(-2.261)	(-1.720)	(-2.148)	(-2.174)	(-2.124)	(-2.078)
CONSTANT	-0.633	0.068	-0.119	0.777	-0.080	0.558

	(-1.503)	(0.967)	(-0.327)	(1.302)	(-0.179)	(0.426)
Observations	63,520	74,364	70,742	41,281	3,568	1,441
R-squared	0.50	0.24	0.28	0.36	0.45	0.48
Country Fixed Effects	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
Breusch-Pagan	4474.42	4462.13	4488.26	4378.36	4276.26	4206.89
P-Value	(0.6587)	(0.6532)	(0.6598)	(0.6547)	(0.6154)	(0.6154)
Kolmogorov-Smirnov	322	349	230.36	173.68	114.38	94.37
P-Value	(0.3313)	(0.3708)	(0.2113)	(0.1908)	(0.1825)	(0.1729)
Wooldridge Test	243.29	264.48	143.18	121.16	62.24	58.49
P-Value	(0.3025)	(0.3767)	(0.2592)	(0.2254)	(0.1728)	(0.1683)

Notes: All variables are defined in Table 4.3. *,** and *** are used in a two tailed test to indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively. The table shows co-efficient estimates above and t-statistics below in brackets.

4.6.3. High and Low Religiosity Countries

The above analyses have established a negative and significant relationship between RELINT, RELINTSPI, LEGALRELSPI and UNEXP_CE in all the three sub-samples. However, they do not indicate the extent to which the results might be affected by the geographic location of the countries. For instance, the results might be driven by countries with high or low levels of religiosity in the developed, emerging and developing country sub-samples. To address this concern, previous studies (McGuire et al., 2012; Dyreng et al., 2012) are followed to segregate the datasets into two samples, consisting of high and low religiosity countries. The study defines countries with above the median religiosity figure in each sub-sample as having high religiosity, and those below the figure as low. Initially, the previous regression models are re-run to assess the impact of SPITEM, RELINT, RELINTSPI, LEGALENF, LEGALSPI, LEGALREL and LEGALRELSPI on UNEXP_CE. The regression results are presented in Panels A and B of Table 4.28. Interestingly, in Panel A the coefficients on SPITEM are still positive and significant at 5% or 1% levels for both high and low religiosity countries in the country sub-samples. Thus the inferences still remain unchanged, confirming the previous results that core earnings increase with special items in both high and low religiosity countries. In highly religious countries, the coefficients on RELINT and RELINTSPI are negative and significant at 1%, 5% and 10% respectively for developing, emerging and developed countries, but insignificant in low religiosity developed and emerging countries. Note that in developing countries, both high and low religious sub-samples show a negative and significant association between RELINT, RELINTSPI and UNEXP_CE at 1% and 10% respectively. This finding is consistent with previous studies (McGuire et al., 2012; Dyreng et al., 2012)

and shows that religiosity mitigates classification shifting and that the effect is much more pronounced in developing countries.

Panel A of Table 4.28 indicates that the coefficients on LEGALENF, LEGALSPI, LEGALREL and LEGALRELSPI are negative and significant at 5% or 1% for both high and low religiosity developed countries. There is also a negative and significant association at 5% or 10% levels between LEGALENF, LEGALSPI, LEGALREL, LEGALRELSPI and UNEXP_CE in both high and low (religiosity) emerging countries. Consistent with previous results, the coefficients on LEGALENF and LEGALSPI are negative but not significant in high and low (religiosity) developing countries. However, LEGALREL and LEGALRELSPI are negative and significant at 5% and 1% in highly religious developing countries, but 5% and 10% in developing countries with low religiosity respectively. The results confirm that the legal environment in developing countries is weak and has limited impact on expense misclassification but it's strengthened by the countrywide religiosity to decrease classification shifting behaviour. The results are consistent with previous results (Table 4.24), suggesting that the joint effect of legal environment and religiosity has the potential to monitor or reduce classification shifting behaviour in developed, emerging and developing countries, although the negative effect is stronger in countries with a strong legal environment and high level of religiosity.

In Panel B of Table 4.28, the regression results are presented showing the association between the interactive terms POWDSPI, POWDLEGSPI, INDIVSPI, INDIVLEGSPI, MASCUSPI, MASCULEGSPI, UNCAVSPI, UNCAVLEGSPI, LONGTSPI, LONGTLEGSPI and UNEXP_CE in the high and low religiosity sub-samples. The previous regression models are re-run including the interactive terms separately, until all

the variables are included in the model for all sub-samples. Separate regression models are run for the high and low religiosity sub-samples for developed, emerging and developing countries. The results are consistent with the findings in Table 4.18 and suggest that firm managers in a country with high level of power distance, masculinity and uncertainty avoidance cultural orientation have an incentive to engage in classification shifting. In particular, the coefficients on POWDSPI, MASCUSPI and UNCAVSPI are positive and maintain their significant levels, even when the sample is broken down into high and low religiosity countries. Consistent with previous results, INDIVSPI and LONGTSPI for developed and emerging countries show a negative coefficient and significant association with UNEXP_CE in high and low religiosity countries. However, in the high and low sub-samples for developing countries, the coefficients on INDIVSPI and LONGTSPI are positive and significant only for the highly religious countries. The results are consistent with the findings in Table 4.18 and the inferences do not change; that is, developing countries are less individualistic and short-term result-oriented because of the high level of extended family pressure and the desire to meet short-term profit targets at the expense of long-term goals.

Panel B of Table 4.28 indicates that the coefficients on POWDLEGSPI, INDIVLEGSPI, MASCULEGSPI, UNCAVLEGSPI and LONGTLEGSPI are negative and significantly related to UNEXP_CE. The results suggest that in the presence of strong legal environment, the effect of power distance, masculinity and uncertainty avoidance cultures on misclassification in a country diminishes. However, legal environment induces individualism and long-term orientation cultures to mitigate classification shifting. The results are consistent with the findings in Tables 4.21 to 4.23 and indicate that the

interactive terms between culture and legal environment subdue managers' classification shifting behaviour in both high and low religiosity sub-samples. The results document evidence that legal environment mitigates or complements the effect of Hofstede's cultural dimension variables in classification shifting behaviour. For example, the positive coefficients on POWDSPI, MASCUSPI and UNCAVSPI change to negative coefficients when these variables interact with the legal environment. As indicated by Panel B of Table 4.28, the coefficients on POWDLEGSPI, MASCULEGSPI and UNCAVLEGSPI are negative and significant for all the sub-samples. Similarly, the negative and significant coefficients on INDIVSPI and LONGTSPI are strengthened when INDIVSPI and LONGTSPI interact with the legal environment. There is a change in both the negative coefficients and significance levels from 10% to 5% or 5% to 1%, confirming the previous results that the legal environment complements culture and religiosity in mitigating classification shifting behaviour.

Finally, additional robustness tests are conducted, controlling for country-specific variables such as inflation rates, economic risk and political risk to ensure that the regression results are not driven by certain country-specific or macroeconomic variables. Previous studies (Dietrich and Wanzenried, 2014; Behn et al., 2013; Haw et al., 2011) indicate that countries associated with high inflation rates, and economic and political risk might drive study findings. Therefore, the main regression models are repeated by controlling for country-specific variables and the model re-estimated with the full and censored data. Several regressions are re-run for each hypothesis. Even though some changes are observed in the coefficients and estimates, the untabulated results and, most significantly, the relationship between SPITEM and UNEXP_CE is significantly positive. The untabulated results

indicate that the findings for hypotheses 1, 2a, 2b, 2c, 2d, 2e, 3a and 3b are not influenced by additional controls for inflation rates, and economic or political risk. The results of the study are therefore robust with the inclusion of country-specific variables. In summary, it is concluded that the expectation model for the regression analysis, extreme values, large sample size, geographic location and religiosity of the countries do not affect the results of the study.

4.7. Conclusion

This study provides new international evidence on classification shifting behaviour in 63 countries in its contribution to the earnings management literature. The aim of the study is to examine the impact of countrywide religiosity, national culture and legal environment on classification shifting behaviour in developed, emerging and developing countries. It also aims to explore the joint effect of interactive terms between religion and legal environment, and culture and legal environment on classification shifting. It is found that classification shifting exists in the developed, emerging and developing country sub-samples, in line with the earnings management literature (Behn et al., 2013; Haw et al., 2011; Fan et al. 2010; Athanasakou et al., 2009; McVay, 2006). Strong evidence is documented to indicate that religiosity mitigates classification shifting, but the negative impact of religiosity on expense misclassification is significantly prominent in emerging and developing countries. This finding contradicts the cross-country study by Callen et al. (2011), but supports McGuire et al.'s (2012) and Dyreng et al.'s (2012) studies in the U.S. on religiosity and accrual-based earnings management.

Secondly, the study investigates the impact of Hofstede's cultural dimension variables of power distance, individualism, masculinity, uncertainty avoidance and long-term orientation on classification shifting in an international setting. It is found that power distance, masculinity and uncertainty avoidance are positive and significantly related to managers' classification shifting behaviour in developed, emerging and developing countries. However, the study observes that masculinity and power distance facilitate classification shifting more in emerging and developing countries than developed ones. It is found that individualism and long-term orientation constrain or deter classification

shifting behaviour in developed and emerging countries; however, their negative impact or ability to reduce classification shifting is well-defined in developed countries. On the contrary, the study documents evidence to show that developing countries are low on individualism (as opposed to collectivism) and are short-term result-oriented; consequently, this facilitates the positive relationship between individualism, long-term orientation and classification shifting in these countries. This is a notable contribution to the literature on earnings management and contributes to existing studies (Davis and Abdurazokzoda, 2016; Klasing, 2013; Callen et al., 2011; Han et al., 2010; Richardson, 2008) on accrual-based earnings management and culture.

Thirdly, the study finds and documents evidence to show that the legal environment subdues classification shifting behaviour in developed and emerging countries. However, in developing countries an insignificant negative relationship is found. The study interacts the legal environment with religiosity, and with the Hofstede cultural dimensions variables (power distance, individualism, masculinity, uncertainty avoidance and long-term orientation) and finds that the legal environment complements religiosity and national culture to reduce managers' classification shifting behaviour. Specifically, it is found that the joint effect of the interactive terms between religion and legal environment on classification shifting is significant in developed and developing countries, relative to the negative impact of the individual variables. The study finds that the joint effect of legal environment and national culture nullifies the positive relationship observed between power distance, masculinity, uncertainty avoidance and accrual-based earnings management documented in other studies (Davis and Abdurazokzoda, 2016; Klasing, 2013; Callen et al., 2011). In addition, it is found that the interactive term between individualism,

long-term orientation and legal environment has a negative effect on classification shifting behaviour in developing countries. Therefore, the positive relationship between individualism, long-term orientation and classification shifting can no longer be demonstrated. This is also a significant contribution to the literature on culture and earnings management.

Therefore, the study contributes to the literature as follows. Firstly, it contributes to the earnings management literature by providing first time evidence of the relationship between religion, culture, legal environment and classification shifting in an international setting. Secondly, it contributes to the literature by showing first time evidence of the relationship between the interactive term between religion and legal environment and their joint effect on classification shifting in an international setting. Thirdly, it contributes by providing first time evidence of the relationship between national cultural dimension variables and classification shifting, showing the impact of the interactive term between legal environment and national culture on classification shifting. It is also the first study to examine the impact of religion, culture and legal environment in developed, emerging and developing countries. Finally, the study has documented evidence to show the complementary role of religion and legal environment, or culture and legal environment, in subduing managers' classification shifting behaviour. Therefore, the research has important policy, practitioner and regulatory implications for all types of countries as it provides further external monitoring to complement existing internal corporate governance mechanisms in mitigating classification shifting and earnings management behaviour.

Appendix C

Table C1: Variance Inflation Factor (VIF) and Tolerance Levels (TOL)

VARIABLES	DEVELOPED			EMERGING			DEVELOPING		
	Co-eff / t-value	TOL	VIF	Co-eff / t-value	TOL	VIF	Co-eff / t-value	TOL	VIF
SPITEM	0.308*** (4.661)	0.48	2.10	0.234** (2.305)	0.47	2.12	0.312** (2.090)	0.48	2.08
RELINT	-0.065* (-1.728)	0.43	2.30	-0.072** (-2.187)	0.43	2.32	-0.028 (-3.382)	0.44	2.28
POWDIS	0.018* (1.751)	0.56	1.80	0.012** (2.060)	0.55	1.82	0.018 (4.309)	0.56	1.78
POWDSPI	0.065* (1.787)	0.43	2.30	0.045** (2.460)	0.43	2.32	0.053*** (3.810)	0.44	2.28
POWDLEGSPI	-0.065** (-2.263)	0.38	2.60	-0.045** (-2.460)	0.39	2.57	-0.023** (-2.170)	0.38	2.63
INDIV	-0.042*** (-3.020)	0.67	1.50	-0.045 (-1.460)	0.68	1.47	0.039 (1.380)	0.65	1.53
INDIVSPI	-0.046*** (-3.554)	0.59	1.70	-0.052* (1.750)	0.60	1.66	0.058* (1.740)	0.58	1.73
INDIVLEGSPI	-0.095*** (-6.354)	0.53	1.90	-0.086** (1.985)	0.54	1.86	-0.072** (-2.530)	0.52	1.93
MASCU	0.012 (1.536)	0.63	1.60	0.022* (1.710)	0.64	1.56	0.036* (1.820)	0.61	1.63
MASCUSPI	0.015** (2.175)	0.56	1.80	0.037** (2.370)	0.56	1.77	0.069** (2.160)	0.55	1.83
MASCULEGSPI	0.087** (3.514)	0.50	2.00	0.083** (2.789)	0.51	1.96	-0.073*** (-2.290)	0.49	2.03
UNCAVO	0.024** (2.005)	0.53	1.90	0.027*** (3.456)	0.54	1.86	0.027** (2.056)	0.52	1.93
UNCAVSPI	0.079*** (3.677)	0.45	2.20	0.056*** (6.387)	0.46	2.16	0.034 (2.408)	0.45	2.23
UNCAVLEGSPI	0.254*** (8.677)	0.37	2.70	0.271*** (8.387)	0.38	2.66	-0.072 (-2.234)	0.37	2.73
LONGTEO	-0.013 (-0.686)	0.71	1.40	-0.042** (-2.260)	0.69	1.44	0.020 (1.250)	0.70	1.43
LONGTSPI	-0.075 (-0.909)	0.59	1.70	-0.074** (-2.490)	0.57	1.74	0.029* (1.732)	0.58	1.73

LONGTLEGSPI	-0.078 (-1.409)	0.53	1.90	-0.127*** (-2.849)	0.52	1.94	-0.028** (-2.320)	0.52	1.93
LEGALENF		0.56	1.80	-0.024** (-2.230)	0.54	1.84	-0.094** (-2.020)	0.55	1.82
LEGALSPI		0.43	2.30	-0.097** (-2.420)	0.45	2.24	-0.086** (-2.190)	0.43	2.32
LEGCULSPI		0.32	3.10	-0.042** (-2.030)	0.33	3.04	-0.068 (-1.449)	0.32	3.12
SIZE	-0.035*** (-5.270)	0.56	1.80	-0.015*** (-4.130)	0.57	1.74	-0.018 (-1.009)	0.55	1.82
ROA	-0.176*** (-3.582)	0.63	1.60	-0.387*** (-4.090)	0.65	1.54	-0.162* (-1.728)	0.62	1.62
MBV	-0.002 (-1.096)	0.71	1.40	-0.006 (-1.040)	0.75	1.34	0.005 (0.580)	0.70	1.42
LEV	0.148*** (4.835)	0.63	1.60	0.209*** (4.478)	0.62	1.62	0.328*** (4.378)	0.62	1.62
BIG4	-0.056*** (-3.792)	0.92	1.09	-0.056*** (-6.240)	0.89	1.12	-0.212 (-1.708)	0.90	1.11
CAPINTEN	0.295*** (9.252)	0.48	2.10	0.235*** (5.421)	0.47	2.13	0.034 (1.538)	0.47	2.12
GROWTH	0.056*** (3.792)	0.42	2.40	0.058*** (5.825)	0.41	2.43	0.012** (2.215)	0.41	2.42
GDP PER CAPITA	-0.948 (-0.701)	0.34	2.90	-0.078 (-0.498)	0.34	2.93	0.143 (1.104)	0.34	2.92
Observations	137884			112,023			5009		
Adjusted R^2	0.25			0.40			0.58		
F-Value	5.07***			5.97***			5.89***		

Notes: All variables are defined in Table 4.3. The study uses *,**and *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. The co-efficient estimates are shown above and the t-statistics below in brackets. The Variance Inflation Factor (VIF) and Tolerance Level (TOL) are respectively shown for the three sub-groupings; Developed, Emerging and Developing Countries. Full discussion of the VIF and TOL are provided in the study.

Chapter 5: Summary and Conclusions

5.1. Introduction

In this thesis, the study has empirically examined several aspects of accruals-based, real activities and classification shifting earnings management practices in the U.S. and 63 countries globally.

In particular, the study has examined the impact of religiosity, corporate governance and religiosity, audit characteristics and religiosity interactions on classification shifting in the U.S.

Again, the study has examined the impact of religiosity, legal environment and their interactions on accrual-based and real activities earnings management practices in the U.S.

In addition, the study investigated and discussed in an international setting involving 63 countries, the impact of country-wide religiosity, national dimensions of culture and legal environment on classification shifting.

Furthermore, the study interacts country-wide religiosity and legal environment, national dimensions of culture and legal environment to assess their impact on classification shifting in an international setting.

In Chapter 5, the study concludes, summarises and discusses some of the major findings and contributions of the study. In addition, the limitations of the study, policy implications and suggestions for future research are also provided in this chapter.

5.2. Summary of the Results

In a nutshell, the findings are consistent with social norm theory, as social norms are reported to shape the behaviour and attitudes of managers in corporate decision-making. In additions, the findings confirm agency theory and demonstrate that managers will not always act or make decisions in the best interest of shareholders. In line with agency theory, the findings clearly show that managers are opportunistic individuals who try to maximise their selfish interest through earnings management. The study observes a positive relationship between special items and unexpected core earnings, an evident of classification shifting. Again, the study observes that some U.S firms are engaged in both accruals-based and real activities earnings management to influence reported net income. This opportunistic managerial behaviour results in a tension between the principal and the agent, which stems from the fact that both parties struggle to maximise their economic benefits. Interestingly, the study notes that this opportunistic managerial behaviour is mitigated by the religious social norms of the firm's environment as indicated by the social norms theory. Overall, the study finds that religious social norms acts as a form of monitoring mechanism to complement the existing corporate governance mechanism established by management to subdue opportunistic managerial behaviour such as earnings management.

5.2.1. Chapter 2 Results

In this chapter, the study investigates whether the religious social norms of the U.S. firm environment affect managers' classification shifting behaviour. Consistent with previous studies (McGuire et al., 2012; Dryeng et al., 2012), it is found that these norms subdue management incentive and motivation to engage in expense and revenue misclassification in the U.S. To ensure that the findings are not influenced by the high earnings quality often associated with rural areas, the data is divided into rural and urban sub-samples, in line with other studies, and finds that religious social norms mitigate classification shifting more in rural areas than in urban ones. The data is also divided into high and low religious areas in the U.S. and provides strong empirical evidence to indicate that classification shifting decreases significantly in strong religious social norm environment compared to weak areas. This finding is to some extent consistent with McGuire et al. (2012) and Dyreng et al. (2012), who observe that accrual-based earnings management is subdued in highly religious areas. In addition, religiosity and corporate governance variables, such as board size, board independence, audit committee, audit tenure and BIG4 auditors are interacted with religiosity and it is found that religiosity serves as a monitoring mechanism and complements existing corporate governance mechanisms, audit characteristics and the Sarbanes Oxley Act (2002) to mitigate classification shifting. Finally, the study investigates the impact of religiosity on classification shifting in geographically centralised and dispersed segments and finds that religiosity is negative and significantly related to classification shifting in centralised segments, but has no effect on misclassification in geographically dispersed segments.

5.2.2. Chapter 3 Results

In Chapter 3, the study examines the impact of religious social norms and firms' legal environment on accrual-based and real activities earnings management. It is found that the religious social norms of a firm's environment reduce accrual-based earnings management, perhaps due to the scrutiny of auditors and external monitoring. However, real activities earnings management is positive and significantly related to religiosity. This may be due to limited auditor vigilance and non-GAAP violation (McGuire et al., 2012). It is also found that the legal environment weakens accrual-based earnings management, but that the negative impact of the legal environment on real activities is not significant.

The study also interacts religiosity and the legal environment to examine their impact on accrual-based and real activities earnings management. It is found that religiosity complements the legal environment in decreasing accrual manipulation, but that the positive impact of religiosity on real activities can no longer be demonstrated. The sample is divided into high and low religiosity areas and rural and urban areas. It is found that the impact of religiosity on accrual-based and real activities earnings management is much more pronounced in high religious social norm environments and that religiosity affects earnings management in urban areas despite the strong heterogeneity in religious beliefs among individuals in big cities compared to rural areas. Notwithstanding, the negative impact is stronger in rural areas. The study also interacts religiosity and the legal environment with governance variables and audit characteristics and finds that religiosity complements existing governance mechanisms in subduing accrual-based and real activities earnings management practices in all the sub-samples.

As a result of recent developments in the literature (Fan et al., 2010; Athanasakou et al., 2009), in the robustness checks, accruals and real activities are estimated using different measures to establish their association with religiosity, legal environment and governance variables. Overall, it is found that there is a significant negative relationship between religiosity and accrual-based earnings management, suggesting that accrual manipulation decreases in a religious social norm environment, in line with previous studies (McGuire et al., 2012; Dyreng et al., 2012), perhaps due to scrutiny by auditors, ethical concerns and external monitoring. On the contrary, a positive relationship is observed between religious social norms and real activities earnings management, but that the positive effect of religiosity on real activities can no longer be demonstrated when the legal environment interacts with religiosity. In addition, the study observes that the interactive term between religiosity and corporate governance mechanisms subdues accrual-based and real activities earnings management and that religiosity complements existing monitoring systems in firms to reduce earnings manipulation.

5.2.3. Chapter 4 Results

In Chapter 4, for the first time, the effects of countrywide religiosity, individual dimensions of cultural perspectives and the legal environment on classification shifting in developed, emerging and developing countries are examined. The study finds that religiosity mitigates classification shifting, but that the effect is much more pronounced in developing countries than emerging and developed ones. Similarly, it is found that the legal environment decreases expense misclassification in both developed and emerging countries, but that the negative impact is insignificantly related to classification shifting in developing countries.

With regards to individual dimensions of culture and classification shifting, the study finds that individualism and long-term orientation cultural dimensions subdue expense misclassification in developed and emerging economies, but that power distance, masculinity and uncertainty avoidance cultural dimensions increase managers' incentive to engage in classification shifting in all categories of countries. It is observed that developing countries are short-term result-oriented and not individualistic, hence the positive relationship between classification shifting and the cultural dimensions of individualism and long-term orientation. The study also examines the impact of the interactive term between countrywide religiosity and legal environment on classification shifting and finds that religiosity and legal environment interactions play a complementary role in decreasing managers' incentive to engage in classification shifting in developed, emerging and developing countries. However, the negative impact is much more pronounced in developed countries than emerging or developing ones because of the strong legal environment in the former. To further assess the impact of national culture and legal environment on classification shifting, the legal environment is interacted with individual dimensions of national culture to examine their effect on classification shifting in the sub-samples. The results indicate that the legal environment weakens the positive effect of power distance, masculinity and uncertainty avoidance on classification shifting in all types of countries. Indeed, the positive impact of individualism and long-term orientation on classification shifting in developing countries can no longer be sustained. In the robustness checks, the study estimates unexpected core earnings using different expectation models, excludes countries with insignificant or a large number of firm-year observations, as well as dividing the data into high or low religiosity countries to assess their impact on classification shifting. Overall, it is found that religiosity and the legal environment subdue

classification shifting in developed, emerging and developing countries, but that a negative effect is much more pronounced when countrywide religiosity interacts with the legal environment. It is also found that power distance, masculinity and uncertainty avoidance facilitate expense misclassification in developed, emerging and developing countries, but that individualism and long-term orientation cultural dimensions mitigate classification shifting in developed and emerging countries. In developing countries, the study finds that national culture dimension variables are positively related to classification shifting; however, the positive impact of power distance, masculinity, individualism, long-term orientation and uncertainty avoidance on classification shifting can no longer be demonstrated when the legal environment interacts with individual dimensions of cultural perspectives.

5.3. Implications of the Thesis and Recommendations

The study has several policy and practical implications. First, the results reinforce social norm theory and confirm the effectiveness of religious social norms and national culture in shaping the attitude and behaviour of firm managers in corporate decision-taking. The findings show the complementary role of religious social norms, national culture and a country's legal environment and emphasise management's need to strengthen corporate governance mechanisms and audit practices. Indeed, an appreciation of the extent to which the interactive terms of religiosity and legal environment, as well as national culture and legal environment, shape corporate financial reporting is essential to maintain quality and consistency in financial reporting. However, religion is rarely discussed in secular organisations, although the findings from the study are useful for regulators, external

monitors and investors as they indicate that religion, culture and the legal environment strengthen the existing internal monitoring mechanisms put in place by management to mitigate classification shifting behaviour.

5.4. Limitations and Suggestions for Future Research

Despite the rigorous empirical evidence presented in this study, there are several limitations which could weaken the reliability and robustness of the findings. The limitations are as follows.

First, in Chapter 2 the study examines the impact of religious social norms, corporate governance and audit characteristics on classification shifting. In doing so, it does not control for the legal environment. Previous cross-country studies (Behn et al., 2013; Haw et al., 2011) indicate that the legal environment has a negative impact on expense misclassification. However, this study controls for audit characteristics and internal governance variables. Moreover, the study does not control for culture due to the unavailability of, or the inability to access, state-level cultural databases. This is likely to be a limitation because previous research indicates that national cultural differences affect due diligence, the quality of financial information, and influences firms' cost of equity (Gray et al., 2013; Roth and O'Donnell, 1996) as well as foreign direct investment (Kogut and Singh, 1998).

In addition, the study uses religious adherence and the religious social norms of the firm environment, but does not interview managers or employees to ascertain their individual religious backgrounds or beliefs. Whilst this method will provide primary religious data source for the study, it is very sensitive information to collect, and very costly and time

consuming to interview individual managers across several firms in the U.S. Moreover, firm managers are not open nowadays about their religious position, consequently other studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2012; Grullon et al., 2010) have relied on religious databases for their analyses. Future studies should question or survey the religious backgrounds of managers and employees. Notwithstanding this, the present results are useful for regulators, external monitors and investors, as they indicate that religion strengthens the existing monitoring mechanism put in place by management to mitigate classification shifting.

Second, in Chapter 3 the study examines the interactive effect of religious social norms and legal environment on accrual-based and real activities earnings management. There is a limitation associated with the legal environment data. Although firm managers were interviewed and data collected by Harris Polls, the sample size was small and this could affect the major findings of the study. It is admitted that this limitation could influence the results of the study and therefore future research should consider a large sample size. One way to improve the overall sample is to widen the scope of respondents by interviewers; for example, Harris Polls could contact as many managers, employees and shareholders as possible connected to the sampled firms. Moreover, the study does not control for the national cultural differences across U.S. states. This could potentially undermine the major findings because previous studies (Gray et al., 2013; Angwin, 2001) observe that culture affects the quality of financial reporting and cultural distance affects shareholder wealth of the acquiring firms. Notwithstanding, the study uses religiosity datasets as proxy for religion and culture as both affect firms' decisions.

Third, in Chapter 4 the study examines international evidence on the links between countrywide religiosity, Hofstede's national cultural dimension scores, the legal environment and classification shifting. The religious datasets are based on surveys conducted by the World Values Surveys of the World Bank. The results of the study might be affected by several factors, therefore the findings should be interpreted in the following contexts. For instance, both countrywide religiosity and Hofstede's individual cultural dimensions were collected through questionnaires and interviews, with their associated limitations of accuracy. Countrywide religiosity and individual cultural dimension datasets are also mostly time invariant and cross-sectional in nature. In addition, countrywide religiosity or individual cultural score cannot be traced to individuals within the country. The results might also be influenced by the geographical dispersion of the firm headquarters or managers might travel from a distant location to work in the country and therefore are not influenced by national culture or countrywide religiosity. Therefore, future global research should interview or survey corporate managers and employees to ascertain their religious backgrounds, cultural backgrounds, views and beliefs over time. Future research could sample more countries in different continents to have a global sample to assess the results. Notwithstanding, this study provides new international evidence on the association between expense misclassification and the interactive terms of countrywide religiosity and legal environment, and national culture and legal environment, to contribute to the literature on classification shifting. The findings are therefore useful for multinational firms, global businesses and national organisations seeking to expand their operations across several countries.

The study gives rise to further research questions. In Chapters 2 to 4, it uses annual financial data from Compustat to assess the impact of religiosity, national culture, and legal environment on classification shifting, in line with McVay (2006, 2008). However, Fan et al. (2010) use quarterly financial data and observe that classification shifting occurs more during the fourth quarter than interim ones. Indeed, it will be interesting to examine the impact of religiosity, national culture and legal environment on classification shifting at both national and global levels using Compustat quarterly financial statements. In addition, further research on the possible interaction between religion and the legal environment, and culture and the legal environment, and their impact on classification shifting, real activities and accrual-based earnings management using quarterly financial data for G-7 countries, developed, emerging and developing economies will provide further insight into the monitoring role of religion, national culture and the legal environment in subduing earnings management.

References

Abbott, L. J., Parker, S., Peters, G. F. and Raghunandan, K. (2003). An Empirical Investigation of Audit Fees, Non-audit Fees, and Audit Committees. *Contemporary Accounting Research,* Volume 20, Issue 2: pp 215–234.

Adams, R.B., Hermalin, B.E. and Weisbach, M.S. (2010). The role of boards of directors in corporate governance: A conceptual framework and survey. *Journal of Economic Literature*. Vol. 48, Issue 1: pp 58-107.

Adams, E.B., Almedia, H. and Ferreira, D. (2005). Powerful CEOs and Their Impact on Corporate Performance. *Review of Financial Studies*. Vol. 18, Issue 4: pp 1403-1432.

Aggarwal, R. and Goodell, J.W. (2014). Culture, institutions and financing choices: How and why are they related?. *Research in International Business and Finance.* Vol. 31, pp 101-111.

Agrawal, A. and Chadha, S. (2005). Corporate Governance and Accounting Scandals *Journal of Law and Economics, October 2005.* Vol. 48, Issue 2, pp 371-406.

Aguilera, R.V., Filatotchev, I., Gospel, H. and Jackson, G. (2008). An Organizational Approach to Comparative Corporate Governance: Costs, Contingencies, and Complementarities. *Organisational Science*. Vol. 19, Issue 3: pp 475-492.

Aguilera, R.V (2005). Corporate governance and director accountability: an institutional comparative perspective. *British Journal of Management*. Vol. 16, Issue 2: pp 1–15.

Ahern, K., Daminelli, D. and Fracassi, C. (2015). Lost in translation? The effect of cultural values on mergers around the world. *Journal of Financial Economics.* Vol. 117, pp 165-189.

Alchian, A. and Demsetz, H. (1972). Production, Information Costs, and Economic Organisation. *The American Economic Review.* Vol. 62, Issue 6: pp 777-795.

Alfonso, E., Cheng, C.S.A. and Pan, S. (2012). Income Classification shifting and mispricing of core earnings. Working paper. Louisiana State University.

Ali, A. and Zhang, W. (2015). CEO tenure and Earnings Management. *Journal of Accounting and Economics.* Vol. 59, Issue 1: pp 60-79.

Alissa, W., Bonsall, S.B., Koharki, K. and Penn Jr. M.W., (2013). Firms' use of accounting discretion to influence their credit ratings. *Journal of Accounting and Economics.* Volume 55, pp 129-147.

Angwin, D. (2001). Mergers and Acquisitions across European borders: National perspectives on pre-acquisition due diligence and the use of professional advisers. *Journal of World Business,* Vol. 36, Issue 1: pp 32-57.

Armstrong, C.S., Guay, W.R., and Weber, J.P. (2010). The role of information and financial reporting in corporate governance and debt contracting. *Journal of Accounting and Economics,* Vol. 50, Issue 3: pp 179–234.

Arruñada, B. (2010). Protestants and Catholics: Similar work ethic, different social ethic. The *Economic Journal.* Vol. 120, Issue 547: pp 890-918.

Ashbaugh, H., Lafond, R. and Mayhew, B. (2003). Do nonaudit services compromise auditor independence? Further Evidence. *The Accounting Review*. Vol. 78, pp 611-640.

Ashbaugh-Skaife, H., Collins, D.W. and Lafond, R. (2006). The effects of corporate governance on firms' credit ratings. *Journal of Accounting and Economics.* Vol. 42, pp 203-243.

Asthana, S.C., and Boone, J. P. (2012). Abnormal audit fee and audit quality. *Auditing: A Journal of Practice and Theory.* Vol. 31, Issue: 3, pp. 1-22.

Athanasouli, D. and Goujard, A. (2015). Corruption and management practices: Firm level evidence. *Journal of Comparative Economics Vol.* 43, pp 1014 – 1034.

Athanasakou, V.E., Strong, N.C. and Walker, M. (2009). Earnings Management or Forecast Guidance to Meet Analyst Expectations? *Accounting and Business Research.* Vol. 39, Issue 1: pp 3-35.

Ayers, B. C., Ramalingegowda, S and Yeung, P. E. (2011). Hometown Advantage: The Effects of Monitoring Institution Location on Financial Reporting Discretion. *Journal of Accounting & Economics*. Vol. 52, Issue 1: pp 41-61.

Baber, W.R., Fairfield, P.M. and Haggard, J.A. (1991). "The effect of concern about reported income on discretionary spending decisions – The case of Research and Development". *The Accounting Review.* Vol. 66, pp 818-829.

Badertscher, B.A**.** (2011). Overvaluation and Its Effect on Management's Choice of Alternative Earnings Management Mechanisms. *The Accounting Review*. Vol. 86, pp 1491-1518.

Baginski, S. P., Hassel, J.M. and Kimbrough, M.D. (2002). The effect of legal environment on voluntary disclosure: Evidence from Management Earnings Forecasts Issued in U.S. and Canadian Markets. *The Accounting Review.* Vol. 77, Issue 1: pp 25-50.

Baker, T.A., Collins, D.L. and Reitenga, A.R. (2009). Incentives and Opportunities to Manage Earnings around Options Grants. *Contemporary Accounting Research.* Vol. 26, Issue 3: 649-72.

Baley, L. and Taylor, S.L. (2007). Identifying Earnings Overstatement: A Practical Test. *Working Paper*. Available at SSRN: https://ssrn.com/abstract=995957

Ball, R. and Shivakumar, L. (2008). "Earnings quality at initial public offerings." *Journal of Accounting and Economics.* Vol. 45, Issue 3: pp 324-349.

Barnett, M. L., Jermier, J.M. and Lafferty, B.A. (2006). Corporate reputation: The definitional landscape. *Corporate Reputation Review*. Vol. 9, Issue 1: pp 26–38.

Barnea, A., Ronen, J. and Sadan, S. (1976) - The Implementation of Accounting Objectives: An Application to Extraordinary Items. *The Accounting Review*. Vol. 50, Issue 1: pp 58-68.

Barro, R. J., and R. M. McCleary (2003). Religion and economic growth across countries. *American Sociological Review.* Vol. 68, Issue 5: pp 760–781.

Barton, J. (2005). Who cares about auditor reputation*? Contemporary Accounting Research.* Vol. 22, Issue 3: pp 549–86.

Barton, J. (2001). Does the Use of Financial Derivatives Affect Earnings Management Decisions? *The Accounting Review:* Vol. 76, Issue 1: pp 1-26.

Bartov, E. (1993). The Timing of Assets Sales and Earnings Manipulation. *The Accounting Review.* Vol. 68, Issue 2: pp 840-855.

Barua, A., Lin, S. and Sbaraglia, A.M. (*2010*). Earnings Management Using Discontinued Operations. *The Accounting Review.* Vol. 85, Issue. 5: pp 1485-1509.

Barua, A., and Cready, W. (2008). Classification shifting and special items. Evidence of earnings management or research design consequence. *Working Paper*. Available at SSRN: https://ssrn.com/abstract=1139231.

Baxamusa, M and Jalal, A. (2014). Does Religion Affect Capital Structure?. *Research in International Business and Finance.* Vol. 31, pp 112-131.

Beaver, W. McNichols, M. Nelson, K. (2003). Management of the loss reserve accrual and the distribution of earnings in the property-casualty insurance industery. *Journal of Accounting and Economics,* Vol. 35, pp. 347-376.

Behn, B. K., Gotti, G., Herrmann, D. and Kang, T. (2013). Classification Shifting in an International Setting: Investor Protection and Financial Analysts Monitoring. *Journal of International Accounting Research.* Vol. 12, Issue 2: pp 27-50.

Bhattacharya, N., Black, E.L., Christensen, T.E. and Mergenthaler, R.D. (2007). Who trades on pro-forma Earnings Information? *The Accounting Review.* Vol. 82, Pp 581-619

Bhojraj, S. Hribar, P. and Picooni, M. (2009). Making Sense of Cents: An Examination of Firms that Miss or Beat Analyst Forecasts. The Journal of Finance. Vol. 64, Issue 5: pp 2361-2388.

Boone, J. P., Khurana, I. K., and Raman, K. K. (2012). Audit Market Concentration and Auditor Tolerance for Earnings Management*,? Contemporary Accounting Research.* Vol. 29, Issue 4: pp 1171-1203.

Boone, J. P., Khurana, I., and Raman, K.K. (2010). Do the Big 4 and second-tier firms provide audits of similar quality? *Journal of Accounting and Public Policy.* Vol. 29, Issue 4: pp. 330-352.

Bowen, R., Davis, A., and Matsumoto, D. (2005). Emphasis on Pro Forma versus GAAP Earnings in Quarterly Press Releases: Determinants, SEC Intervention, and Market Reactions." *The Accounting Review.* Vol. 80, pp 1011-1038.

Boyd, R. and Richardson, P. (1988). *Culture and the Evolutionary Process*, 2nd edition, Chicago, University of Chicago Press.

Boyd, R. and Richardson, P. (2005). *The Origin and Evolution of Cultures (Evolution and Cognition),* 1st edition, Chicago, University of Chicago Press.

Bradshaw, M. and Sloan, R. (2002). GAAP versus the street: An empirical assessment of two alternative definitions of earnings. *Journal of Accounting Research.* Vol. 40, Issue 1: pp 41-66.

Breusch, T.S. and Pagan, A.R. (1980). The Lagrange Multiplier Test and its Applications to Model Specification in Econometrics. *The Review of Economic Studies*. Vol. 47, Issue 1: pp 239-253.

Brochet, F., Miller, G.S. and Srinivasan, S. (2013). Do Analysts Follow Managers Who Switch Companies? An Analysis of Relationships in the Capital Markets? *The Accounting Review.* Vol. 89, Issue 2: pp 451-482.

Brown, L. and Caylor, M. (2005). A temporal analysis of quarterly earnings thresholds: Propensities and valuation consequences. *The Accounting Review.* Vol. 80, Issue 2: pp 423-440.

Bruns, W., and Merchant, K. (1990). The dangerous morality of managing earnings. *Management Accounting.* Vol. 72, Issue 2: pp 22–25.

Bulkeley, W (2002). Questioning the books: IBM annual report shows stronger core earnings. Wall Street Journal (March 12).

Burgstahler, D.C. and Earnes, M.J. (2003). Earnings Management to Avoid Losses and Earnings Decreases: Are Analysts Fooled? *Contemporary Accounting Research*. Vol.20, Issue 2: pp 253-294.

Burgstahler, D.C., Hall, L. and Leuz, C. (2006). The Importance of Reporting Incentives: Earnings Management in European Private and Public Firms. *The Accounting Review*. Vol. 81, Issue 5: pp 983-1016.

Burns, N., Kedia, S. and Lipson, M. (2010). Institutional ownership and monitoring: Evidence from financial misreporting. *Journal of Corporate Finance*. Vol. 16, Issue 4: pp 443-455.

Bushee, B. and Leuz, C. (2005). Economic Consequences of SEC Disclosure Regulation: Evidence from the OTC Bulletin Board. *Journal of Accounting and Economics*. Vol. 39, Issue 2: pp 233-264.

Bushee, B. (1998). The Influence of Institutional Investors on Myopic R & D Investment Behaviour. *The Accounting Review*. Vol. 73, Issue 3: pp 305-333.

Cadman, B. and Sunder, J. (2014) Investor Horizon and CEO Horizon Incentives. *The Accounting Review*. Vol. 89, Issue 4: pp 1299-1328

Callen, J. L., Morel, M. and Richardson, G. (2011). Do culture and religion mitigate earnings management? Evidence from a cross-country analysis. *International Journal of Disclosure and Governance*. Vol. 8, Issue 2: pp 103–121.

Cao, Y., Myers, L.A. and Omer, T.C. (2012). Does company reputation matter for financial reporting quality. Evidence from restatements. *Contemporary Accounting Research.* Vol. 29 Issue No. 3, pp 956-990.

Carcello, J.V., Hermanson, D.R., Neal, T.L. and Riley, R.R. Jr (2002). Board Characteristics and Audit Fees. *Contemporary Accounting Research*. Vol. 19, Issue 3: pp 365-384.

Chau, L. and Gray. M (2010). Family ownership, board independence and voluntary disclosure: Evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation*. Vol. 19, pp 93-109.

Cheng, Q., Lee, J and Shevlin, T. (2016). Internal Governance and Real Earnings Management. *The Accounting Review.* Vol. 91, Issue 4: pp 1051-1085.

Cheng, Q. and Warfield, T.D. (2005). Equity Incentives and Earnings Management. *Accounting Review.* Vol. 80, pp. 441-476.

Cheon, S., and Ha, S. (2011). Disclosure and classification of operating income by firms that early adopt K-IFRS. *The Korean Accounting Journal.* Vol. 20, Issue 2: pp 239-275

Chiu, P. C., Teoh, S.H. and Tian, F. (2013). Board Interlocks and Earnings Management Contagion. *The Accounting Review.* Vol. 88, pp 915 – 944.

Choi, J. H., Kim, J. B., Qui, A., and Zang, Y. (2012). Geographic proximity between auditor and client: How does it impact audit quality? *Auditing: A Journal of Practice and Theory*. Vol. 31, Issue: 2, pp. 43-72.

Chung, H. H. and Wynn, J.P. (2008). Managerial legal liability coverage and earnings conservatism. *Journal of Accounting and Economics*. Vol. 46, Issue 1: pp 135-153.

Cialdini, R. B., and N. J. Goldstein (2004). Social influence: Compliance and conformity. *Annual Review of Psychology.* Vol. 55, Issue 1: pp 591–621.

Cohen, D.A. and Zarowin, P., (2010). Accrual-based and real earnings management activities around seasoned equity offerings. *Journal of Accounting and Economics.* Vol. 50, Issue 1: pp 2-19.

Coles, J. L, Daniel, N. D. and Naveen, L. (2008). Boards: does one size fit all? *Journal of Financial Economics.* Vol. 87, Issue 2: pp 329-356.

Conroy S. J., and Emerson, T. L. N. (2004). Business ethics and religion: Religiosity as a predictor of ethical awareness among students. *Journal of Business Ethics.* Vol. 50, Issue 4: pp 383–396.

Core, J.F., Holthausen, R.W. and Larcker, D.F. (1997). Corporate governance, CEO compensation and Firm Performance. *Working Paper.* Available at SSRN: https://ssrn.com/abstract=10376

Cready, W. M., Lopez, T.J., and Sisneros, A.C. (2012). Negative Special Items and Future Earnings: Expense Transfer or Real Improvements? *The Accounting Review*. Vol. 87, Issue 4: pp 1165-1195.

Cullen, C. and Christopher, F. (2002). Culture and corporate governance, *Journal of Business Ethics.* Vol. 50, Issue 4: pp 383–396.

Daniel, N.D., Denis, D.J., and Naveen, L. (2008). Do firms manage earnings to meet dividend thresholds? *Journal of Accounting and Economics.* Vol. 45, Issue 1: pp 2–26.

Daske, H. Gebhardt, G. and McLeay, S.J. (2006). The distribution of earnings relative to targets in the European Union. *Accounting and Business Research.* Vol. 36, Issue 3: pp 137-168.

Davidson, B. and Stevens, D. (2013), Can a Code of Ethics Improve Management Behaviours and Investor Confidence? Some Intuition and Experimental Evidence. *The Accounting Review*. Vol. 88, Issue 1: pp 51-74.

Davis, L.S. and Abdurazokzoda, F. (2016). Language, Culture and institutions: Evidence from a new linguistic dataset, *Journal of Comparative Economics*. Vol. 44, Issue 3: pp 541-561.

Davis, L. D., Soo, B. S. and Trompeter, G. M. (2009). Auditor Tenure and the Ability to Meet or Beat Earnings Forecasts. *Contemporary Accounting Research*. Vol. 26, Issue: 2, pp. 517-548

Davis, J.H., Schoorman, F.D. and Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of Management Review.* Vol. 22, Issue: 1, pp. 20-47.

DeAngelo, L. E., (1981). Auditor size and audit quality. *Journal of Accounting and Economics.* Vol. 3, Issue 3: pp. 183-199.

Dechow, P. M., Hutton, A. P., Kim, J. H. and Sloan, R. (2012). Detecting Earnings Management: A New Approach. *Journal of Accounting Research.* Vol. 50, Issue 2: pp 275–334.

Dechow, P.M., and Shakespeare, C. (2009) - Do Managers Time Securitization Transactions to Obtain Accounting Benefits? *The Accounting Review.* Vol. 84, Issue 1: pp 99-132.

Dechow, P., Sloan, R. and Sweeney, A. (1996). Causes and consequences of earnings manipulation: An analysis of firms' subject to enforcement actions by the SEC. *Contemporary Accounting Research.* Vol. 13, Issue 1: pp 1-36.

Dechow, P. M. and Skinner, D.J. (2000). Earnings Management: Reconciling the Views of Accounting Academics, Practitioners, and Regulators. *Accounting Horizons.* Vol. 14, Issue 2: pp 235-250.

DeFond, M. and Jiambalvo, J. (1994), Debt covenant violation and manipulation of accruals, *Journal of Accounting and Economics. Vol.* 17, pp 145-176.

Desender, K.A, Aguilera, R.V., Crespi, R. and Garcia-Cestona, M. (2013.) When does ownership matter? Board characteristics and behaviour, *Strategic Management Journal.* Vol. 34, Issue 7: pp 823-842.

Desender, K.A., Castro, C.E., and De Leon, S.A.E (2007). Earnings Management and Cultural Values. Universidad Autonoma de Barcelona. Working Paper. October.

Dietrich, A. and Wanzenried G. (2014). The determinants of commercial banking profitability in low- middle – and high income countries. *The Quarterly Review of Economics and Finance* Vol. 54, pp 337- 354.

Donaldson, L. (2008). Ethics problems and problems with ethics: Toward a pro-management theory. *Journal of Business Ethics.* Vol. 78, Issue: 3, pp. 299-311.

Donelson, D.C., Mcinnis J.M. and Mergenthaler, R.D., (2016). Discontinuities and Earnings Management: Evidence from Restatements Related to Securities Litigation. *Contemporary Accounting Research.* Vol. 30, Issue 1: pp 242–268.

Donelson, D.C., McInnis, J. and Mergenthaler, R.D. (2016). Explaining Rules-Based Characteristics in U.S. GAAP: Theories and Evidence. *Journal of Accounting Research*. Vol. 54, Issue 3: pp 827-861.

Doukakis, L.C. (2010). The persistence of earnings and earnings components after the adoption of IFRS. *Managerial Finance,* Vol. 36, Issue: 11, pp. 969-980.

Doyle, J., Lundholm, R. and Soliman, M. (2003). The predictive value of expenses excluded from pro forma earnings. *Review of Accounting Studies. Vol.* 8, Issue 3: pp 145-74.

Doyle J.T., Jennings J. and Soliman M.T., (2013). Do Managers Define Non-GAAP Earnings to Meet or Beat Analyst Forecasts? *Journal of Accounting and Economics*. Vol. 56, pp 40-
56.

DuCharme, L., Malatesta, P. and Sefcik, S. (2004). Earnings management, stock issues and shareholder lawsuits. *Journal of Financial Economics.* Vol. 71, Issue 1: pp 27-49.

Dyreng, S., Hanlon, M. and Maydew, E.L. (2014). Rolling the Dice: When does Tax Avoidance Results in Tax Uncertainty. *Working Paper.* University of North Carolina at Chapel Hill.

Dyreng, S. D., Mayew W.J. and Williams, C.D. (2012). Religious Social Norms and Corporate Financial Reporting. *Journal of Business Finance and Accounting*. Vol. 39, Issue 8: pp 845-875

Dyreng, S., Hanlon, M. and Maydew, E. (2012). Where Do Firms Manage Earnings?, *Review of Accounting Studies.* Vol. 17, pp 649-699.

Eisenhardt, K. (1989). Agency Theory: An Assessment and Review. *Academy of Management Review*. Vol. 14, Issue 1: pp 57-74.

Eleswarapu, V.R. and Venkataraman, K. (2006). The impact of legal and political institutions on equity trading costs: A cross-country analysis. *Review of Financial Studies*, Forthcoming.

Elliot, J.A. and Shaw, W.H. (1998). Write-offs as Accounting Procedures to Manage Perceptions. *Journal of Accounting Research.* Vol. 26, Issue 3: pp 91-119.

Elshandidy, T. and Neri, L. (2015). Corporate Governance, Risk Disclosure Practices and Market Liquidity: Comparative Evidence from the UK and Italy. *Corporate Governance an International Review*. Vol. 23, Issue 4: pp 331-356.

Elster, J. (1989) Social Norms and Economic Theory. *The Journal of Economic Perspectives.* Vol. 3, Issue 4: pp. 99-117.

Engel, E., Hayes, R.M. and Wang, X. (2006). The Sarbanes-Oxley Act and Firms' Going Private Decisions. *Journal of Accounting and Economics.* Vol. 44, Issue 1-2: pp 116-145.

Ewert, R. and Wagenhofer, A. (2005). Economics Effects of Tightening Accounting Standards to Restrict Earnings Management. *The Accounting Review*. Vol. 85, Issue 4: pp 1303-1323.

Faleye, O. (2011). CEO Directors, Executive Incentives and Corporate Strategic Initiatives. *Journal of Financial Research.* Vol. 34, Issue 2: pp 241-277.

Fama, E.F. and French, K.R. (1997). Industry of Cost of Equity. *Journal of Financial Economics.* Vol. 44, pp 153-193.

Fama, E.F. and Jensen, M.C. (1983). Separation of Ownership and Control. *The Journal of Law and Economics.* Vol. 26, Issue 2: pp 301-325.

Fan, Y., Barua, A., Cready, W.M. and Thomas, W. (2010). Managing Earnings Using Classification Shifting: Evidence from Quarterly Special Items. *The Accounting Review*. Vol. 85, Issue 4: pp 1303-1323.

Fan, Y., and Liu, K. (2015). Misclassification Core Expenses as Special Items: Cost of Goods Sold or Selling, General and Administrative Expenses. *SSRN Electronic Journal 01/2018.*

Fan, J., O., Rui, M. and Zhao, M. (2008). Public governance and corporate finance: Evidence from corruption cases, *Journal of Comparative Economics*. Vol. 36, pp 343-364.

Faleye, O., (2008). CEO Directors, Executive Incentives, and Strategic Corporate Initiatives. *The Journal of Financial Review*. Vol. 34, Issue 2: pp 241-277.

Farber, D. (2005). Restoring trust after fraud: Does corporate governance matter? *The Accounting Review.* Vol. 80, Issue 2: pp 539–61.

Fernandes, N. and Ferreira, M.A. (2007) The Evolution of Earnings Management and Firm Valuation: A Cross-country Analysis. Universidade Catolica Portuguesa. *Working Paper*.

Fidrmuc, J.P. and Jacob, M. (2010). Culture, Agency Cost and Dividends. *Journal of Comparative Economics.* Vol. 38, Issue 3: pp 321-339.

Field, L., Lowry, M. and Shu, S. (2005). Does disclosure deter or trigger litigation? *Journal of Accounting and Economics.* Vol. 39, pp 487-507.

Finkelstein, S. and D'aveni, R.A. (1994). CEO Duality as a Double-Edged Sword: How Boards of Directors and Unity of Command. *Academy of Management Review.* Vol. 37, Issue 5: pp 57-74. Balance Entrenchment Avoidance

Finke, R., and Scheitle, C.P. (2005). Accounting for the Unaccounted: Computing Correctives for the 2000 RCMS Data. Review of Religious Research. Vol. pp. 5-22.

Francis, J. R., and Krishnan, J. (1999). Accounting accruals and auditor reporting conservatism. Contemporary Accounting Research. Vol. 16, Issue 1: pp. 135-165.

Francis, J. R., and Yu, M. D. (2009). The effect of Big 4 office size on audit quality. *The Accounting Review.* Vol. 84, Issue 5: pp 1521–52.

Francis, J. R., Huang, A. H. Rajgopal, S. and Zang, A. Y. (2008). CEO reputation and earnings quality. *Contemporary Accounting Research.* Vol. 25, Issue 1: pp 109–47.

Francis, J., Hanna, D. and Vincent, L. (1996). Causes and Effects of Discretionary Asset Write- Offs. *Journal of Accounting Research.* Vol.34, Issue 6: pp 117-134.

Francis, J., Philbrick, D., and Schipper, K. (1994a). Shareholder litigation and corporate disclosures. *Journal of Accounting Research*. Vol. 32, pp 132-164.

Francis, J., Philbrick, D., and Schipper, K. (1994b). *Determinants and outcomes in class action securities litigation.* Chicago, University of Chicago Press.

Frankel, R., McVay, S. and Soliman, M. (2011). Non-GAAP earnings and board independence. *Review of Accounting Studies.* Vol. 16, Issue 1: pp 719-744.

Francis, J.R., and Wang, D. (2008). The joint effect of investor protection and BIG 4 audits on earnings quality around the world. *Contemporary Accounting Research.* Vol. 25, Issue 1: pp 157-191.

Gao P. (2013). A measurement approach to conservatism and earnings management. *Journal of Accounting and Economics.* Vol. 55, pp. 251–268.

Garcia-Herrero, A., Gavila, S. and Santabarbara, D. (2009). What explains the low profitability of Chinese banks? *Journal of Banking and Finance.* Vol. 33, pp 2080-2092.

Gerakos J. and Kovrijnykh A., (2013). Performance Shocks and Misreporting. *Journal of Accounting and Economics.* Vol. 56, pp. 57-72.

Gonzalez, J. S. and Garcia-Meca, E. (2014). Does Corporate Governance Influence Earnings Management in Latin American Markets? *Journal of Business Ethics.* Vol. 121, pp 419–440.

Graham, J. R., Harvey, C.R. and Rajgopal, S. (2005). The economics implications of corporate financial reporting. *Journal of Accounting and Economics.* Vol. 40, Issue 1-3: pp 3-73.

Gray, S. Kang, T. and Yoo, Y. (2013). National Culture and International Differences in Cost of Equity Capital. *Management International Review*. Vol. 53, Issue 6: 899-916.

Greene, W.H. (2012). Econometrics Analysis. New York, Pearson, 8th Edition.

Grullon, G., G. Kanatas, and J. Weston (2010). Religion and Corporate (Mis) Behaviour. *Working paper.* Available at https://ssrn.com/abstract=1472118.

Guiso, L., Sapienza, P. and Zingales, L. (2006). Does culture affect economic outcomes? *Journal of Economic Perspectives.* Vol. 20, Issue 2: pp 23–48.

Guiso, L., Sapienza, P., Zingales, L. (2003) People's opium? Religion and economic attitudes. *Journal of Monetary Economics.* Vol. 50, Issue 1: pp 225-282.

Gunny, K. (2010). The relation between earnings management using real activities manipulation and future performance: Evidence from meeting earnings benchmarks. *Contemporary Accounting Research.* Vol. 27, Issue 3: pp 855–888.

Hand, J.R.M. (1989). Did Firms Undertake Debt-Equity Swaps for an Accounting Paper Profit or True Financial Gain?. *The Accounting Review.* Vol. 64, Issue 4. pp. 587-623.

Hair Jr., J.F., Celsi, M.W., Money, A.H., Samoeul, P. and Page, J. M. (2015). *Essentials of Business Research Methods,* New York, Routledge. 2nd Edition.

Han, S., Kang, T., Salter, S. and Yoo, Y.K. (2010) A cross-country study on the effects of national culture on earnings discretion, *Journal of International Business Studies.* Vol.41, pp 123-142.

Harrison, J.S. and Coombs, J.E. (2012). The Moderating Effects from Corporate Governance Characteristics on the Relationship between Available Slack and Community-Based Firm Performance. *Journal of Business Ethics*. Vol. 107, Issue 4: pp 409-422.

Harris, M., and Raviv, A. (2008). A Theory of Board Control and Size. *The Review of Financial Studies.* Vol. 21, Issue 4: pp 1797-1832.

Harris, D. and Helfat, C.E. (1998). CEO Duality, Succession, Capabilities and Agency Theory: Commentary and Research Agenda. *Strategic Management Journal.* Vol. 19, Issue 9: pp 901-904.

Haw, M., Ho, S.M., and Li, A.Y., (2011). Corporate Governance and Earnings Management by Classification Shifting. *Contemporary Accounting Research.* Vol. 28, pp 517-553.

Healy, P.M. and Whalen, J.M. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons.* Vol. 13, Issue 4: pp 365-83.

Hernandez, M. (2012). Toward an Understanding of the Psychology of Stewardship. *Academy of Management Review.* Vol. 37, Issue 3: pp 172-193.

Herrmann-Pillath, C., Libman, A. and Yu, X. (2014). Economic integration in China: Politics and culture, *Journal of Comparative Economics.* Vol. 42, pp 470-492.

Hermann, T., Inoue, T. and Thomas, W.B. (2003). The sale of assets to manage earnings in Japan. *Journal of Accounting Research.* Vol. 41, Issue 1: pp. 89-108.

Hilary, G., and K. W. Hui. (2009). Does religion matter in corporate decision making in America? *Journal of Financial Economics.* Vol. 93, Issue 3: pp 455–473.

Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values,* 2nd edition, California: Sage Publications.

Hofstede, G. (1991) *Cultures and Organizations: Software of the Mind.* New York: McGraw- Hill.

Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviours, Institutions and Organizations across Nations.* 2nd edition, California: Sage Publications.

Hofstede, G. and Hofstede, G.J. (2005) *Cultures and Organizations: Software of the Mind.* New York: McGraw-Hill.

Hofstede, G., Hofstede, G. and Minkov, M. (2010). *Cultures and Organizations: Software of the Mind,* 3rd edition, New York: McGraw-Hill.

Hohenfels, D. (2016). Audit Tenure and Perceived Earnings Quality. *International Journal of Auditing.* Vol. 20, pp. 224-238

Holmstrom, B. (1979). Moral hazard and observability. *The Bell Journal of Economics*. Vol. 10, Issue: 1, pp. 74-91.

Horton J., Serafeim, G., Serafeim I. (2013). Does Mandatory IFRS Adoption Improve the Information Environment? *Contemporary Accounting Research.* Vol. 30, Issue 1: pp 388-42.

Hossain, M., Mitra, S., Rezaee, Z. and Sarath, B (2011). Corporate Governance and Earnings Management in the Pre-and Post – Sarbanes-Oxley Act Regimes. Evidence from Implicated Option Backdating Firms. *Journal of Accounting, Auditing & Finance.* Vol. 26, pp 279-315.

Houmes, R.E., and Skantz, T.R. (2010). Highly Valued Equity and Discretionary Accruals. *Journal of Busness Finance and Accounting.* Vol. 37, pp. 60-92.

House, R., Hanges, P., Javidan, M., Dorfman, P. and Gupta, V. (2004) *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies.* Thousand Oaks, CA: Sage Publications.

Hribar, P., and Nichols, D.C. (2007). The use of unsigned earnings quality measures in tests of earnings management. *Journal of Accounting Research.* Vol. 45, Issue 5: pp 1017–1053.

Hu, F., Pan, X. and Tian, G. (2013). Does CEO pay dispersion matter in an emerging market? Evidence from China's listed firms. *Pacific-Basin Finance Journal.* Vol. 24, pp 235-255.

Iannaccone, L. (1998). Introduction to the economics of religion. *Journal of Economic Literature*. Vol. 36, Issue 3: pp 1465–1496.

Jackson, S.B. and Wilcox, W.E. (2000). Do managers grant sales price reductions to avoid losses and decline in earnings and sales*? Quarterly Journal of Business and Economics.* Vol 39, Issue 4: pp 3-20.

Jain, P.K. and Rezaee, Z. (2006). The Sarbanes-Oxley Act 2002 and Capital Market Behaviour: early Evidence. *Contemporary Accounting Research.* Vol. 23, Issue 3: pp 629-654.

Jarvinen, T. and Myllymaki, E.R. (2016). Real Earnings Management before and after reporting SOX 404 material weaknesses. *Accounting Horizon.* Vol. 30. Issue 1: pp 119-141.

Jensen, M.C. (2005). Agency Costs of Overvalued Equity. *Financial Management.* Vol. 34, pp. 5-19.

Jensen, M.C. and Meckling, W.H. (1976). Theory of the Firm. Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, Vol. 3, Issue 4: pp 305-360.

Jo, H. and Harjoto, M. A. (2011). Corporate Governance and firm value: The Impact of Corporate Social Responsibility. *Journal of Business Ethics.* Vol. 103, Issue 3: pp 351-383

Jo, H. and Harjoto, M. A. (2012). The Causal Effect of Corporate Governance on Corporate Social Responsibility. *Journal of Business Ethics. Vol.* 106, Issue 1: pp 53-72.

Kang, J. and Shivdasani, A. (1997). Corporate restructuring during performance declines in Japan. *Journal of Financial Economics.* Vol. 46, Issue 1: pp 29-65.

Kedia, S. and Rajgopal, S. (2011). Do The SEC Enforcement Preferences Affect Corporate Misconduct?. *Journal of Accounting and Economics.* Vol. 51, pp 259-278.

Keister, L. A. (2003). Religion and wealth: The role of religious affiliation and participation in early adult asset accumulation. *Social Forces.* Vol. 82, Issue 1: pp 175-207.

Kennedy, P. (2008). A Guide to Econometrics. *6th Edition, Malden, MA. Blackwell Publishing.* pp. 286.

Kennedy, E. J., and Lawton, L. (1998). Religiousness and business ethics. *Journal of Business Ethics*. Vol. 17, Issue 2: pp 163–175.

Kim, Y. and Park, M.S. (2014). Real Activities Manipulation and Auditors' Client-Retention Decisions. *The Accounting Review*. Vol. 89, Issue 1: pp 367-401.

Kim, K., Mauldin, E. and Patro, S. (2014). Outside directors and board advising and monitoring performance. *Journal of Accounting and Economics*. Vol. 57, Issues 2–3: pp 110–131.

Kimbrough, M. and Louis, H. (2011). Voluntary disclosure to influence investor reactions to merger announcements: An examination of conference calls. *The Accounting Review.* Vol 86, Issue 2: pp 637-667.

King, R., Pownall, G. and Waymire, G. (1990). Expectations adjustments via timely management forecasts: Review, synthesis and suggestions for future research. *Journal of Accounting Literature.* Vol. 9, pp 113-144.

Klasing, M. J., (2013). Cultural dimensions, collective values and their importance for institutions. *Journal of Comparative Economics.* Vol. 41: pp 447-467.

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics.* Vol. 33, Vol 3: pp 375–400.

Kogut, B. and Singh, H. (1998). The Effect of National Culture on the Choice of Entry Mode. *Journal of International Business Studies.* Vol. 19, Issue 3: pp 411-547

Kothari, S.P., Mizik, N. and Roy Chowdhury, S. (2016). Managing for the Moment. The Role of Earnings Management via Real Activities versus Accruals in SEO Valuation. *The Accounting Review.* Vol. 91, Issue 2: pp 559-586.

Kothari, S.P., Leone, A.J. and Wasley, C.E. (2005). Performance Matched Discretionary Accruals Measures. *Journal of Accounting and Economics.* Vol. 39, pp 163-197.

Krull, L. (2004). Permanently reinvested foreign earnings, taxes and earnings management. *The Accounting Review.* Vol. 79, Issue 3: pp 754-767.

Kumar, A., Page, J. and Spalt, O. (2010). Religious Beliefs, Gambling Attitudes and Financial Market Outcomes. *Working* Paper (University of Texas at Austin and Tilberg University).

Kwon, S.Y., Lim, Y. and Simnett, R. (2014). The effect of mandatory audit firm rotation on audit quality and audit fees: Empirical evidence from Korea audit market. *Auditing: A Journal of Practice and Theory.* Vol. 33, Issue: 4, pp. 167-95

Lambert, R., Leuz, C. and Verrecchia, T. (2007). Accounting Information, Disclosure and the Cost of Capital. *Journal of Accounting Research.* Vol. 45, Issue 2: pp 385-420.

La Porta, R., Lopez-de Silanes, F., Shleifer, A and Vishny, R.W. (1998). Law and Finance. *The Journal of Political Economy.* Vol. 106, Issue 6: pp 1113-1155.

Le Breton-Miller, L, D. and Lester, R.H. (2011). Stewardship or agency? Asocial embeddedness reconciliation of conduct and performance in public family businesses. *Organisational Science.* Vol. 22, Issue: 3, pp. 704-721.

Lehrer, E. L. (2004). Religion as a determinant of economic and demographic behaviour in the United States. *Population and Development Review.* Vol. 30, Issue 4: pp 707–726.

Lennox, C., and Pittman, J. A. (2010). Big Five Audits and Accounting Fraud. *Contemporary Accounting Research.* Vol. 27, Issue 1: pp. 209-247.

Leopold, A.C. (1998). Stewardship in Encyclopaedia of Applied Ethics. *Academic Press, San Diego, CA.* pp. 225-232.

Leuz, C., Nanda, D. and Wysocki, P. (2003). Earnings Management and Investor Protection: An International Comparison. *Journal of Financial Economics*. Vol. 69. Issue 3: pp 505-527.

Levitt, A. (1998). The Numbers Game New York University Centre for Law and Business *http://www.sec.gov/news/speech/speecharchive/1998/spch220.txt*

Licht, A., Goldschmidt, C. and Shalom Schwartz, S. (2005). Culture, Law, and Corporate Governance, *International Review of Law and Economics.* Vol. 25, pp 229-255.

Lin, S. Radhakrishnan, S. and Lixin, S. (2009). Earnings management and guidance for Meeting or Beating Analysts' Earnings Forecasts. SSRN: *https://papers.ssrn.com/sol3/papers.cfm?abstract_id=928182*.

LiLin, J.W. and Hwang, M. I. (2010). Audit quality, corporate governance and earnings management: a meta analysis. *International Journal of Auditing.* Vol. 14, pp 57-77.

Li, F. and Srinivasan, S. (2011) Corporate governance when founders are directors *Journal of Financial Economics.* Vol. 102, Issue 2: pp 454–469.

Li, K., Griffin, D., Yue, H. and Zhao, L. (2013). How Does Culture Influence Corporate Governance Risk-Taking? *Journal of Corporate Finance.* Vol. 23, pp 1-22.

Li, Y. and Zahra, S. (2012). Formal Institutions, Culture, and Venture Capital Activity: A Cross-Country Analysis, *Journal of Business Venturing.* Vol. 27, pp 95-111.

Lipton, M. and Lorsch, J. (1992). A modest proposal for improved corporate governance. *The Business Lawyer.* Vol. 84, pp 59-77.

Longenecker, J. G., McKinney, J.A. and Moore, C.W. (2004). Religious intensity, evangelical Christianity, and business ethics: An empirical study. *Journal of Business Ethics.* Vol. 55, Issue 4: pp 373–386.

Loughran, T. and Schultz, P. (2005). Liquidity: Urban versus rural firms. *Journal of Financial Economics*. Vol. 78, Issue 2: pp 341–374.

Loughran, T., (2007). The impact of firm location on equity issuance. *Working paper*, University of Notre Dame.

Lougee, B. and Marquardt, C. (2004). Earnings informativeness and strategic disclosure: An empirical examination of "pro forma" earnings. *The Accounting Review*. *Vol.* 79, Issue 3: pp 769-795.

Luez, C., Nanda, D., and Wysocki, P.D. (2003). Earnings management and investor protection. An international comparison. *Journal of Financial Economics*. Vol. 69, Issue 3: pp 505-527.

Madhogarhia, P. Sutton, N.K. and Kohers, T. (2009). Eranings management practices among growth and value firms. *Applied Financial Economics*. Vol. 19, pp. 1767-1778.

Mangena, M. and Pike, R. (2005). The effect of audit committee shareholding, financial expertise and size on interim financial disclosures. *Journal of Accounting and Business Research.* Vol. 35, Issue 4: pp 327-349.

Matsumoto, D. (2002). Management's incentive to avoid negative earnings surprises. *The Accounting Review*. Vol. 77, Issue 3: 483-514.

McCuddy, M.L. and Pirie, W.L. (2007). Spirituality, stewardship and financial decision-making. Toward a theory of intertemporal stewardship. *Managerial Finance*. Vol. 33, Issue: 12, pp. 957-969.

McGuire, T.S., Omer, T.C. and Sharp, N.Y. (2012). The Impact of Religion on Financial Reporting Irregularities. *The Accounting Review.* Vol. 87, Issue 2: pp 497-523.

McKinsey and Company (2011). Assessing and addressing the implications of new financial regulations for the US banking industry. *Working Paper.* Issue 25.

McKnight, P.J. and Weir, C. (2009). Agency costs, corporate governance mechanisms and ownership structure in large UK public quoted companies. A panel data analysis. *The Quarterly Review of Economics and Finance.* Vol. 49, pp 139-158.

McVay, S. (2006). Earnings Management using Classification shifting: an examination of core earnings and special items. *The Accounting Review*. Vol. 81, Issue 3: pp 501-531.

McVay, S. (2008). Classification Shifting or Model Bias? A reply to Barua and Cready. *Working Paper.* University of Washington.

Mersland, R., D'Espallier, B., and Supphellen, M. (2012). The effects of religion on development efforts: Evidence from the Microfinance industry and research agenda. *World Development.* Vol. 41, pp 145-156.

Meyer, J.W. and Rowan, B. (1977). Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology*, Vol. 83, Issue 2: pp 340-363.

Moehrle, S. (2002). Do firms use restructuring charge reversals to meet earnings targets? *The Accounting Review.* Vol. 77, Vol. 2: pp 397-414.

Monsen, R.J. and Downs, A. (1965). A Theory of Large Managerial Firms. *The Journal of Political Economy.* Vol. 73, Issue 3: pp 221-236.

Nassim, D. and Penman, S.H. (2001). Ratio Analysis and Equity Valuation: From Research to Practice. *Review of Accounting Studies*. Vol. 6, Issue 1: pp 109-154.

Nelson, M., Elliot, J. and Tarpley, R. (2002). Evidence from auditors' about managers' and auditors' earnings management decisions. *The Accounting Review.* Vol. 77, pp 175-202.
Newton, L.H. (1997). Stewardship in Werhane, P.H. and Freeman, R.E. (Eds). *The Blackwell Encyclopaedia Dictionary of Business Ethics, Blackwell Business, Oxford.*

Noh, M., Moon, D, Guiral, A. and Esteban, L.P. (2014). Earnings Management Using Income Classification Shifting – Evidence from the Korean IFRS Adoption Period. *Working Paper.*

Ntim, C.G., Lindop, S. and Thomas, D.A. (2013). Corporate governance and risk reporting in South Africa: A Study of Corporate Risk Disclosure in the Pre-and Post – 2007/2008 global financial crises period. *International Review of Financial Analysis.* Vol. 30, pp 363-383.

Omer, T. C., Sharp, N.Y. and Wang, D. (2015). The Impact of Religion on the Going Concern Reporting Decisions of Local Audit Practice Offices. *Working paper.*

Parboteeah, K. P., Hoegl, M. and Cullen, J.B. (2008). Ethics and religion: An empirical test of a multidimensional model. *Journal of Business Ethics.* Vol. 80, Issue 2: pp 387–398.

Payne, J.L. and Robb, S.W.G. (2000). Earnings management: The effect of ex ante earning expectations. *Journal of Accounting, Auditing and Finance.* Vol. 15, pp 371-392.

Peasnell, K. V., Pope, P.F. and Young, S. (2005). Board monitoring and earnings management: Do outside directors' influence abnormal accruals? *Journal of Business Finance & Accounting.* Vol. 32, pp 1311-1346.

Pourciau, S. (1993). Earnings Management and Non-Routine Executive Changes. *Journal of Accounting and Economics.* Vol. 16, Issue 1-3: pp 317-336.

Rangan, S. (1998). Earnings before seasoned equity offerings: Are they overstated? *Journal of Financial Economics.* Vol. 50, pp 101-122.

Rankin, M., Stanton, P., McGowan, S., Ferlauto, K. and Tilling, M. (2012).Contemporary issues in accounting. *Wiley Publication*. pp. 257-269

Renneboog, L. and Spaenjers, C. (2011). Religion, Economic Attitudes and Household Finance. *Oxford Economic Papers.* Vol. 64, Issue 1: pp 103-127.

Richardson, G. (2008). The relationship between culture and tax evasion across countries. Additional evidence and extensions. *Journal of International Accounting, Auditing and Taxation.* Vol. 17, pp 67-78.

Robb, S. (1998). The effect of analysts' forecasts on earnings management in financial institutions. *The Journal of Financial Research.* Vol. 21, pp 315-331.

Ross, S.A., (1973). The Economic Theory of Agency: The Principal's Problem. *The American Economic Review.* Vol. 63, Issue 2: pp 134-139.

Roth, K. and O'Donnel, S. (1996). Foreign Subsidiary Compensation Strategy: An Agency Theory Perspective. *Journal of Academy of Management.* Vol. 39, Issue 3: pp 678-703.

Roy Chowdhury, S. (2006). Earning Management through real activities manipulation. *Journal of Accounting and Economics.* Vol. 42, Issue 3: pp 335-370.

Sawicki, J. and Shrestha, K. (2008). Insider Trading and Earnings Managemnet. *Journal of Business Finance and Accounting.* Vol. 35, pp. 331-346.

Schwartz, S. H. (1994). *Beyond individualism/collectivism: New cultural dimensions of Individualism and Collectivism:* Theory, Method and Applications. Thousand Oaks, CA: Sage.

Schwartz, S. H. and Bardi, A. (2001). Value hierarchies across culture: Taking a similarities perspective. *Journal of Cross-Cultural Psychology. Vol. 32, pp 268-290.*

Scott, W. R. (1987). The Adolescence of Institutional Theory, *Administrative Science Quarterly,* Vol. 32, Issue 4: pp 493-511.

Scott, W. R. (1997). *Financial Accounting Theory*. 6th edition, Prentice Hall, New York.

Securities and Exchange Commission, Letter: (2000). Audit Risk Alert to the American Institute of Certified Public Accountants (Washington, D.C.: Securities and Exchange Commission, October 13, 2000).

Shivakumar, L. (2000). Do firms mislead investors by overstating earnings before seasoned equity offerings? *Journal of Accounting and Economics*. Vol. 29, Issue: 3. Pp 356-412.

Shu, T., Sulaeman, J. and Yeung, P.E. (2012), Local Religious Beliefs and Mutual Fund Risk Taking Behaviours. *Management Science*, Articles in Advance, pp. 1–18 (http://dx.doi.org/10.1287/mnsc.1120.1525). Accessed: 13th January 2013.

Skinner, D.J. and Sloan, J. (2002). Earnings surprises, growth expectations and stock returns or don't let an earnings torpedo sink your portfolio. *Review of Accounting Studies.* Vol. 7, pp 289-312.

Skinner, D.J., (1994). Why firms voluntarily disclosure bad news. *Journal of Accounting Research.* Vol. 32, pp 38-60.

Skinner, D.J., (1997). Earnings' disclosures and stockholder lawsuits. *Journal of Accounting and Economics.* Vol. 23, pp 249-282.

Sloan, R. G. (1996). Do Stock Prices Fully Reflect Information in Accruals and Cash flows about Future Earnings? *The Accounting Review.* Vol. 71, Issue 3: pp 289-315.

Srinivasan, S. (2005). Consequences of financial reporting failure for outside directors: Evidence from accounting restatements and audit committee members. *The Accounting Review.* Vol. 88, Issue 5: pp 1683-1714.

Stack, S. and Kposowa, A. (2006) The effect of religiosity on tax fraud acceptability: A cross-national analysis. *Journal for the Scientific Study of Religion.* Vol. 45, pp 325-351.

Strong, J.S. and Meyer, J.R. (1987). Asset Writedowns: Managerial Incentives and Security Returns. *Journal of Finance.* Vol. 42, Issue 3: pp 643-661.

Stulz, R. and Williamson, R. (2003). Culture, Openness and Finance. *Journal of Financial Economics.* Vol. 70, pp 313-349.

Sun, J., and Cahan, S. (2009). The effect of compensation committee quality on the association between CEO cash compensation and accounting performance. *Corporate Governance: An International Review*, 17:193-207

Sunder, S. (2005). Minding our manners: Accounting as social norms, *The British Accounting Review*. Vol. 37, Issue 4: pp 367–387.

Sunstein, C. R. (1996). Social norms and social rules. *Columbia Law Review*. Vol. 96, Issue 4: pp 903–968.

Tayler, W.B. and Bloomfield, R.J. (2011). Norms, Conformity and Controls. *Journal of Accounting Research.* Vol. 49, Issue 3: pp 753-790.

Tang, L. and Koveos, P.E. (2008) A framework to update Hofstede's cultural value indices: Economic dynamics and institutional stability. *Journal of International Business Studies.* Vol. 39, pp 1045-1063.

Teoh, S., Welch, I. and Wong, T. (1998). Earnings management and the post-issue underperformance of seasoned equity offerings. *Journal of Financial Economics*. Vol. 50, pp 63-100.

Ter Haar, G. and Ellis, S. (2006). The role of religion in development: Towards a new relationship between the European Union and Africa. *The European Journal of Development Research.* Vol. 18, pp 351–367.

Terpstra, D. E., Rozell, E.J. and Robinson, R.K. (1993). The influence of personality and demographic variables on ethical decisions related to insider trading. *The Journal of Psychology*. Vol. 127, Issue 4: pp 375–389.

Tsakumis, G.T., Curatola, A.P and Porcano, T.M. (2007). The relationship between national cultural dimensions and tax evasion. *Journal of International Accounting, Auditing and Taxation.* Vol. 16, pp 131-147.

Turley, S. and Zaman, M. (2002). The Corporate Governance Effects of Audit Committees. *Journal of Management and Governance* . Vol. 8, Issue 3: pp 305-332.

Urcan, O. (2007). Geographical Location and Corporate Disclosures. Working paper, London Business School. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract=930433

Uddin, S. and J. Choudhury, (2008) Rationality, traditionalism and the state of corporate governance mechanisms: Illustrations from a less-developed country. *Accounting, Auditing & Accountability Journal.* Vol. 21, Issue 7: pp 1026 – 1051

Vafeas, N., Vlittis, A., Katranis, P. and Ockree, K. (2003). Earnings Management Around Share Repurchases: A Note. *Abacus – A Journal of Accounting, Finance and Business Studies.* Vol. 39. Issue 2: pp. 262-272.

Veprauskaite, E. and Adams, M. (2013). Do powerful chief executives influence the financial performance of UK firms? *The British Accounting Review*. Vol. 45, Issue 3: pp 229–241.

Vermaelen, T. (2005). Foundations and Trends in Finance. Vol. 1. Issue 3: Available at *SSRN: https://ssrn.com/abstract=1625024*

Vitell, S. J. (2009). The role of religiosity in business and consumer ethics: A review of the literature. *Journal of Business Ethics.* Vol. 90, pp 155 – 167.

Vorst, P. (2016). Real Earnings Management and Long-Term Operating Performance. The role of Reversals in Discretionary Investment Cuts. *The Accounting Review.* Vol. 91, Issue 4: pp 1219-1259.

Watts, R. and Zimmerman, J. (1990). Positive Accounting Theory: A Ten Year Perspective. *The Accounting Review*. Vol. 65. Issue 1: pp 131-156.

Weaver, G. R., and Agle, B. R. (2002). Religiosity and ethical behaviour in organizations: A symbolic interactionist perspective. Academy of Management Review. Vol. 27, Issue 1: pp 77–97.

Welch, M. R., Tittle, C. R. and Petee, T. (1991). Religion and deviance among adult Catholics: A test of the ‘‘moral communities’’ hypothesis. *Journal for the Scientific Study of Religion.* Vol. 30, Issue 2: pp 159–172.

Wiseman, R.M., Cuevas-Rodriguez, G. and Gomez-Mejia, L.R. (2012). Has Agency Theory Run its Course? Making the Theory More Flexible to Inform the Management Reward Systems. *Corporate Governance an International Review.* Vol. 20, Issue 6: pp 526-546.

Wongsunwai, W. (2013). The Effect of External Monitoring on Accrual-Based and Real Activities Earnings Management: Evidence from Venture- Backed Initial Public Offerings, *Contemporary Accounting Research.* Vol. 30, Issue 1: pp 296–324.

Wooldridge, J.M. (2002). *Econometrics analysis of cross section and panel data*. The Massachusetts Institute of Technology Press.

World Values Survey (2014). World values survey association. http://www.worldvaluessurvey.org/WVSOnline.jsp. Dated accessed: 15/02/2016

Xie, B., Davidson, W.N. and DaDalt, P.J. (2003). Earnings management and corporate governance: the role of board and the audit committee. *Journal of Corporate Finance.* Vol. 9, pp 295-316.

Yu, F., (2008). Analyst coverage and earnings management. *Journal of Financial Economics.* Vol. 88, Issue 2: pp 245-271.

Zahn, G.C. (1970). The commitment dimension. *Sociology of Religion.* Vol 31. Issue 4: pp 203-208.

Zalata, A. and Robert, C (2015). Internal Corporate Governance and Classification Shifting Practices - An Analysis of U.K. Corporate Behaviour. *Journal of Accounting, Auditing and Finance. Vol. 31, Issue 1: pp 51-74.*

Zang, A.Y. (2008). Evidence on the Trade off between Real Manipulation and Accrual Manipulation. *Working Paper. Forthcoming.*

Zang, A.Y. (2012). Evidence on the Trade-Off between Real Activities Manipulation and Accrual-Based Earnings Management. *The Accounting Review.* Vol. 87, Issue 2: pp 675-703.

Zhang, J. (2008). The contracting benefits of accounting conservatism to lenders and borrowers. *Journal of Accounting and Economics.* Vol. 45, Issue 1: pp 27–54.